DIRECTORY EDITION

MID-DECEMBER 1935

MILL SUPPLIES

THE MAGAZINE of INDUSTRIAL DISTRIBUTION

Hose • Conveyor and Transmission Belts • Packing

HEWITT

Rubber Corporation

BUFFALO, NEW YORK

INDUSTRIAL RUBBER GOODS EXCLUSIVELY

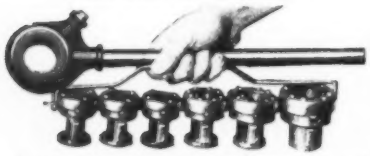
XUM

BEAVER PIPE TOOLS

295 Dana Ave. Warren, Ohio

The Quality Line — Since 1900

No. 3 Beaver Ratchet—⅛ to 1-Inch Bolt Dies—¼ to 1-Inch

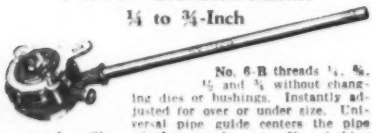


Ratchet mechanism fully enclosed—no teeth on die head to become mutilated. **Oil holes in die heads for easy** oiling and chip clearance. **Dies square in shape**; reversible. No weak sections to break. Handy die-head carrier pin. Right or left.

Net Prices—No. 3 complete, ¼ to ¾-inch, $12.75; ⅝ to 1-inch, $13.50; ¼ to 1-inch, $15.75; ⅛ to 1-inch, $18.00.

Units—Ratchet with handle, $3.00. **Die Heads with Dies** ⅛, ¼ or ⅜-inch, $2.25; ½ or ¾-inch, $2.63; 1-inch, $3.00; ¾-inch 20-thread Brass, $3.00. **Extra Dies**, any size, per set $1.63. **Bolt Die Heads**, with dies, any size right hand, ¼ to 1-inch, $3.58.

No. 6-R—Beaverette Ratchet ¼ to ¾-Inch



No. 6-R threads ¼, ⅜, ½ and ¾ without changing dies or bushings. Instantly adjusted for over or under size. Universal pipe guide centers the pipe accurately. Close nipples can be cut. New locking device—on top. Two sets of dies, required because of two different thread pitches, are always in the tool. For iron, steel, brass or copper pipe. Right or left. Dies for ⅛ inch extra, if desired.

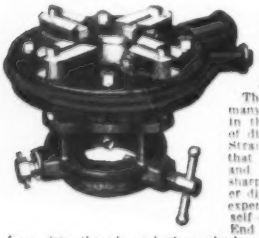
Net Prices—No. 6-R Beaverette Ratchet complete ¼ to ¾-inch, $15.50; No. 6 Beaverette Plain, complete ¼ to ⅜-inch, $12.00. Extra Dies, per set (¼, ⅜), (¼ x ⅜) or (½ x ¾) $2.25.

No. 12-R Beaver 1 to 2-In.

Fully self-contained and adjustable. Those who have used the new No. 12-R Beaver Ratchet say it is "the finest self-contained die stock ever made." The Straight-Line Pull (ratchet on the die head) insures smooth and easy cutting, good threads and minimum wear on dies and tool. The self-contained rear end centers the pipe accurately (no bushings). Cuts uniform drip threads and close nipples. Exceptionally rugged, yet weighs only 18 lbs. Made of certified malleable iron to withstand hard use. R.H. only.

Net Prices—No. 12 Plain, complete, $12.50; No. 12-R One-handle Ratchet, complete, $15.00; No. 12-RX Two-handle Ratchet, complete, $16.00; Extra Dies, per set (threads four sizes), $1.50. Dies for Cast Iron Pipe, per set $2.00.

No. 8-R 1 to 2-Inch — No. 38-R 2½ to 3-In.



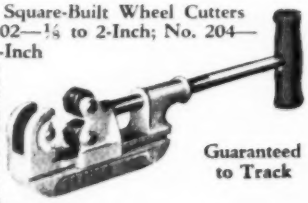
These tools offer many new advantages in the "4-post" type of die stock—such as, Straight Line Pull that insures smoother and easier cutting; sharper threads; longer die life; less repair expense. Accurate and self contained. Rear End that cuts uniform drip threads and close nipples; positive die retaining device—dies cannot become lost; interchangeable die segments. The lightest and strongest 1 to 2-inch ratchet tool made.

Net Prices—No. 8 Plain, complete, $9.60; No. 8-R One-handle Ratchet, complete $12.00; No. 8-RX Two-handle Ratchet, complete, $13.00; Extra Dies, any size, 1, 1¼, 1½ or 2-inch per set, $0.75; Special Brass Pipe Dies, per set, $0.75. Dies for Cast Iron Pipe, per set, $1.25.

Beaver Dies fit all standard "4 post" tools.

No. 38-R, 2½ to 3-inch, $27.00; Extra Dies, per set, $2.40.

Beaver Square-Built Wheel Cutters —No. 102—⅛ to 2-Inch; No. 204—2½ to 4-Inch

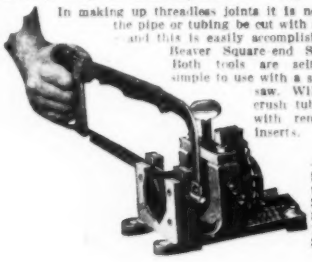


The No. 102 Beaver can be used with either 1 or 3 wheels, and is guaranteed to "track" all of the time. Certified malleable Iron insures against breakage. Patents pending.

Guaranteed to Track

Net Prices—No. 102 Beaver, $3.00; No. 204, $10.00.
(Wheels and Rollers are standard and interchangeable.)

Beaver Square-End Sawing Vise No. 2—⅛ to 2-Inch; No. 4—1½ to 4-Inch



In making up threadless joints it is necessary that the pipe or tubing be cut with a square-end and this is easily accomplished with the Beaver Square-end Sawing Vise. Both tools are self contained—simple to use with a standard hack saw. Will not mar or crush tubing. Made with renewable steel inserts.

Net Prices—No. 2 Sawing Vise, ⅛ to 2-inch, $5.00; No. 4 Sawing Vise, 1½ to 4-inch, $15.00.

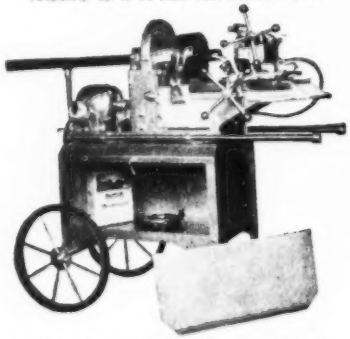
Heavy-Duty Self-Contained Beavers 1 to 2"

Thread 1 to 2-inch without changing dies or bushings. Adjustable to thread over or under standard without shortening the length of thread. Will cut crooked (drip) threads—also short nipples—even on 2-inch. New models have many improved features. Right or left.

Net Prices—No. 26 Beaver Ratchet, $19.25; No. 25 Beaver Plain, $16.50.

"Model-A" Beaver Pipe Machine—½ to 2"

(Capacity up to 12-Inch with Geared Tools).



Outstanding advantages: Rack and pinion feed; tilting work head; swinging cone reamer; accessible oil pump; outboard pipe support; double jet oil flow; quick opening die heads fully adjustable for standard, over or under; automatic square-end cutoff; thread and nipple length gage; right hand operated; easily portable; aluminum housing to minimize weight; interchangeable motor unit; Universal motor (reversible) operates on any 110 volt A. C. or D. C. line, 25 to 60 cycle, 220 volt also available.

Net Prices—Model A, complete with three self-contained die heads, threading ½ to 2-inch, and five gallons Beaver Threading Oil, $345.00. Same, complete with one die head and three sets of dies to thread ½ to 2-inch pipe, $310.00. Portable Stand, de luxe, (enclosed) with 17-inch rubber tired wheels, $27.50. Portable Stand with 17-inch steel wheels, open type, $17.50. Extension Drive Shaft, $20.00. Beaver Quick release Nipple Chuck, complete with one adapter, any size, $15.00. Extra Adapters for nipple chucks, any size, ¼ to 2-inch, each, $1.50. Extra Pipe Dies to thread ⅛, ¼x⅜, ½x¾, 1x1¼, 1½x2, per set, $3.00. U. S. S. Bolt Dies, any size, ¼ to 1-inch, per set, $3.00. 1⅛ to 1½-inch, per set, $5.00.

Beaver Alloy Tool-Steel Reamers

No. 200 Swivel Type—⅛ to 2-inch
No. 300 Ratchet Type—⅜ to 3-inch

Perfectly balanced and easy to use. Handles of convenient length for ease of operation—are made "to fit your hand." The reamer cone is a solid casting of the highest grade of alloy tool-steel. (No inserted blades to come loose.) Can be resharpened over and over again—and when finally worn out can be replaced at moderate cost. Note the large "hand grip" of the No. 300 reamer which permits application of pressure with ease. No danger of abdominal injury when using Beaver Reamers.

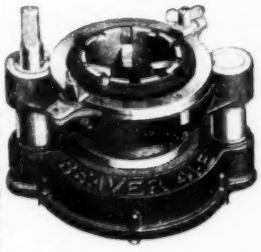
Net Prices—No. 200 Swivel Reamer, $4.00; No. 300 Ratchet Reamer, $5.60.

No. 17 Ratchet ¼ to 2-Inch

Rugged and fool-proof. Four large oil holes (bridged across top to prevent die spreading) facilitate oiling, provide ample chip clearance, and insure good threads. Die segments square—no weak sections to break off. Buy any range.

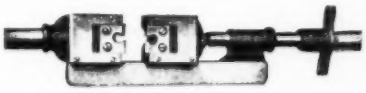
Net Prices—No. 17 complete, ¼ to 2-inch, $13.20; ½ to 1¼-inch, $14.80; ½ to 2-inch, $22.20; ¼ to 2-inch, $27.80.

No. 41-E Adjustable 2½ to 4-Inch



Simple, rugged semi-self-contained and adjustable. One set of dies threads all four sizes. Enclosed gears, packed with graphite grease, prevent damage to gear and pinion and save costly repair bills. Gear case of nickel semi-steel—greater strength, smoother and easier cutting, better threads, and less wear on dies and tool.

Net Prices—No. 41-E, 2½ to 4-inch, $50.00; No. 61-E, 2½ to 6-inch, $115.00; No. 61-E, 4 to 6-inch, $94.66; No. 80, 4½ to 8-inch, $150.00; No. 90, 9 to 12-inch, $250.00.



Beaver Square-End Pipe Cutters

No. 1—⅛ to 1-inch; No. 5—½ to 2-inch.

Cut pipe square without burrs. Knives feed automatically. **Net Prices**—No. 1, $13.50; No. 5, $15.00.

No. 104 Square-End Cutter 2½ to 4-Inch

Self-contained. Gears encased and packed in grease. Unbreakable knives feed automatically. Universal two-jaw chuck centers and clamps tool on the pipe—no bushings. A "one-piece" tool.

Net Prices—No. 104, 2½ to 4-inch, $60.00; No. 106, 2½ to 6-inch, $80.00; No. 108, 4½ to 8-inch, $144.00; No. 112, 9 to 12-inch, $194.00; No. 10, 2½ to 4-inch (Ratchet—hand use only), $48.00. Operating ratchet for Nos. 104, 106, 108, 112, extra, $6.00.

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for Wholesalers and Distributors of Mill and Industrial Supplies, Hardware, Plumbing and Electrical Supplies

THE largest producers of supply catalogs for more than 25 years. Serving supply houses located in 250 cities of the United States and Canada.

More than 1000 Repeat Order Editions (41 of the 48 catalogs shown on this page were repeat orders).

1. Skilled compilation by men with practical knowledge of the goods.

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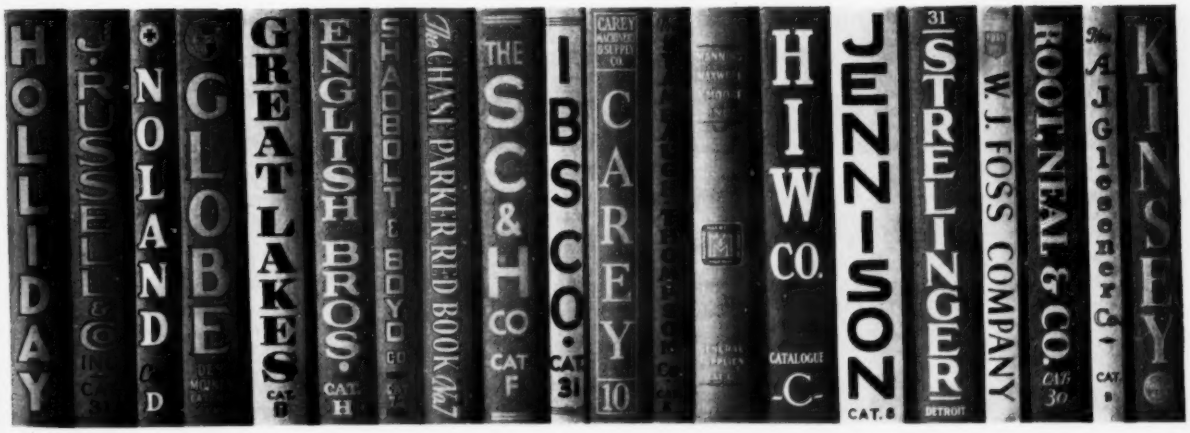

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The Up-to-the-Minute, Complete Line of Conveying and Power Transmission Equipment and Positive Drives

The name Link-Belt is synonymous with dependable performance throughout industry. Over 60 years' experience is represented in our broad line of elevating, conveying and power transmission equipment. Supply genuine Link-Belt equipment, and capitalize on the Link-Belt reputation and prestige.

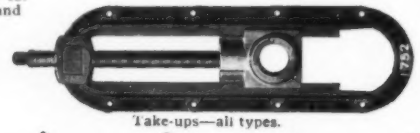
Complete line of bearings. Link - Belt Shafer Self-Aligning Roller Bearing Pillow Block shown.

Clutches of various types.

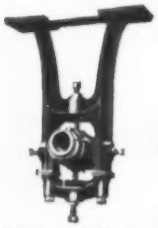
Pulleys of all types for power transmission and conveying.

Gears—cast and cut tooth. A complete line of patterns.

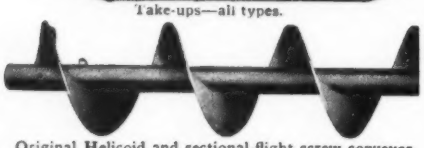
Cast tooth and cut tooth Sprocket Wheels of all types.



Take-ups—all types.



Hangers of all types.



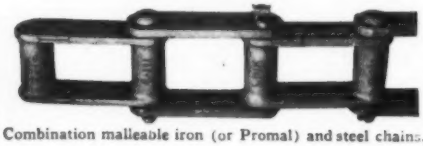
Original Helicoid and sectional-flight screw conveyor, including complete line of hangers, troughs, box ends, etc

PROMAL and Malleable Iron Chains of all types.

Flexible couplings of various types.

Steel chains for every conveying and power transmission service.

Steel, Promal, Malleable and Salem buckets of all types.



Combination malleable iron (or Promal) and steel chains.

For high speed power transmission Link-Belt Silverstreak silent chain drive is unequaled. It requires no special attention—no upkeep expense. Complete drives—in sizes up to 60 H.P.—are stocked by distributors. Send for Data Book 125 and Stock List 725.

Link-Belt Silverlink roller chain drive for moderately high speed, light or heavy duty power transmission service—represents the ultimate in chains of this type. Drives up to 225 H.P. are stocked by distributors. Send for Data Book and Stock List 1457.

The Link-Belt P.I.V. (Positive, Infinitely Variable) Gear is a positive, compact, chain-driven, all metal, self-lubricating, variable speed transmission. Available for horizontal and vertical mounting of the basic unit; also motorized, and with gear reduction sets. Send for Book No. 1574.

The Link-Belt V.R.D. (Variable Roller Drive) is a companion to the P.I.V., having all of its qualities, but is designed for fractional horsepower service. It also gives infinite speed variation with exact speed ratios. Send for Book No. 1374.

Link-Belt herringbone gear type speed reducer is a fully enclosed self-contained unit with ability to withstand heavy shock loads. Built in a variety of sizes, in single, double and triple reductions, and in a large range of ratios and horsepowers. Send for Book No. 1519.

The Link-Belt motorized helical gear speed reducer provides unusual compactness, simplicity, and economy in first cost, with high efficiency and durability. Send for Book No. 1515.

Link-Belt worm gear reducers are made in a wide range of ratios and capacities, single and double reduction, horizontal and vertical types. All units are fully enclosed in substantial dustproof housings, compact and pleasing in appearance, with all moving parts thoroughly lubricated. Send for Book No. 1524.

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The Leading Manufacturer of Equipment for Handling Materials and Transmitting Power

CHICAGO INDIANAPOLIS PHILADELPHIA ATLANTA SAN FRANCISCO TORONTO

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MILL SUPPLIES

With Which is Consolidated INDUSTRIAL DISTRIBUTOR AND SALESMAN
And Combined With Mill Supply Salesman. Founded by Ernest H. Smith

DIRECTORY EDITION
Mid-December, 1935

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MILL SUPPLIES is in its twenty-fifth year of service to the mill supply field

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XUM

TOOLS THAT TALK YOUR LANGUAGE

WHEREVER the wheels of industry turn, WILLIAMS' tools are known, approved and specified by discriminating buyers. . . Both the "Vulcan" brand on Clamps and Dogs and the Williams' Scroll—"Diamond W" on Wrenches, guarantee satisfaction and have earned the whole-hearted acceptance of industry.

More than 50 years of forging experience stand back of Williams' products — and Williams' jobbers. It's a background that spells profits.

J. H. WILLIAMS & CO., *"The Wrench People,"* **75 Spring St., New York**

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Finished regularly with black, baked-on enamel and heads bright. *Unfinished*, at lower cost—same wrench except without size stamping, enamel and bright heads.

"Superrenches" and "Supersockets"

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WILLIAMS
DROP-FORGED TOOLS

THE JOB OF BUYING

WHILE it is impossible to overemphasize the importance of salesmanship in the conduct of an industrial supply business, yet the best planned, most religiously pursued selling program would be an utter waste of effort if sound, sensible, farsighted purchasing were not there to back it up.

Hence, William Kelly, purchasing agent of The W. M. Pattison Supply Company, Cleveland, brings out the importance of this phase of supply house activities admirably in a feature article in this issue of MILL SUPPLIES when he states: "Goods well bought are half sold."

It does not require much imagination to understand the magnitude of the task which faces the supply house buyer. His is a much more complicated job than that of the buyer for an industrial or process plant or a service organization. The latter has only to buy those goods which will give the best service in the establishment he serves. In this he has the advice and counsel of department heads. Neither has he a bewildering problem of selection. His local distributor is on the job to help him.

The supply house buyer must know the needs of all the customers and prospective customers in his territory, not simply those of one plant. From thousands of items he must choose those which must be kept constantly in stock—and determine upon the proper quantities. At the same time, he must guard against overstocking. Further than that, in the purchase of new lines, or new items, he must be equipped to think in terms of selling possibilities and markets. In other words, he must be sales minded.

The average supply house offers a complete warehouse service to its community. Yet, despite the enormous stocks carried, distributors and their salesmen are daily called upon to supply information on or actually furnish many items not regularly carried in stock. The fact that they give this service establishes them even more firmly as an indispensable factor in the scheme of industrial distribution.

While buying is not forgotten by the editors of MILL SUPPLIES in providing material for the other twelve issues of the year, it is a fact that principal emphasis is laid on selling, with the presentation of material that will be helpful to the distributor and his salesmen in their sales activities. Neither is selling lost sight of in this DIRECTORY ISSUE, for all the functions of the supply house are dependent one upon the other for success, and what is helpful information in one phase is consequently helpful in every other phase. But in this DIRECTORY ISSUE the purchasing angle is predominant.

It is felt that the practical information presented in these pages—prepared for distributors and their organizations exclusively—will be definitely helpful to all members of the distributor family, and the thanks of the editors are extended to all who have assisted in its preparation.

XUM

40 YEARS OF UNINTERRUPTED SERVICE TO INDUSTRY DOES MEAN SOMETHING!

For one thing it means that a manufacturer to survive forty years (without interruption) of "panics," "booms," and "depressions" must have a whale of a lot of vitality. And during "hard" and "soft" times must have acquired a mature viewpoint, sound judgment and loads of practical, workable experience.

To ARMOUR SAND PAPER WORKS forty years of uninterrupted manufacturing has meant keeping pace with industry. Has meant the constant development of new and better abrasive products. Has meant working closely and diligently with the growing problems of its customers—and aiding in a measure perhaps, in their successes.

Forty years of uninterrupted manufacturing in the abrasive field has given ARMOUR SAND PAPER WORKS an accurate, definite knowledge of what the words quality and service mean. Has given pride in craftsmanship. And the satisfaction of producing products that have made practical contributions to general industry.

The products of ARMOUR SAND PAPER WORKS have been well and favorably known by the customers of all Mill Supply Distributors during these forty years.

ARMOUR SAND PAPER WORKS

Division of ARMOUR AND COMPANY

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IN PURCHASING

Remember the adage— "Goods well bought are half sold"

By
WILLIAM KELLY
Purchasing Agent
The W. M. Pattison Supply Co., Cleveland

MORE than twenty-eight years' experience as buyer for the well-known "House of Pattison" qualify "Bill" Kelly to discuss the subject of purchasing with authority, so he knows whereof he writes when he states that the supply house purchasing agent must play the double role of buyer and seller. In this article, he discusses common buying problems and his company's methods of meeting some of them, in a way that is bound to interest you.

THIS subject of purchasing for a supply house is mighty broad gauge. So much so, in fact, that all I dare let myself attempt in this article is to touch the "high spots"—the problems that are common to all of us, and our company's methods of dealing with some of them. At the same time, I realize that what proves a workable method for us may be utterly unworkable for another house, facing an entirely different set of circumstances.

We all recognize the fact that the buyer for a mill supply house is confronted with many problems not common to the average industrial buyer. This is largely due to the fact that the latter has a more or less set program or manufacturing schedule to which he adheres, whereas the mill supply buyer's purchases are made on the basis of turnover possibilities.

It is often impossible to predict accurately the salability of certain commodities and therefore difficult to determine the quantities to

be purchased. Even with our perpetual inventory system, and with business showing some improvement, it is a question whether to base our purchases on normal requirements, or to anticipate the rush of orders that may be just around the corner. Our inventory system has shown that certain items we haven't ordered in the last five years are now beginning to move. Furthermore, some purchases based on average need have recently proved inadequate.

In our efforts to control our purchases, however, we find it definitely to our advantage to keep up our perpetual inventory system religiously. Two men spend all of their time on this work. They make a record of everything that is ordered, and when the goods arrive, the receiving tickets are passed on to them, and they check their records to show these goods are in stock.

The illustration on the second page of this article shows quite clearly our method of keeping stock records. In the record of 1½-inch special plug valves, you will note that in 1935 we have ordered 17, of which 13 have been put in stock. The fact that there is no line drawn through the number "4" indicates that these four were on order, but had not been received at this writing.

The plus signs before items in the section at the right indicate our inventory at the end of each year. For example, at the end of 1930, or as of January 2, 1931, we had nine of these valves in stock. We then sold six, which left three in stock. Then these three were disposed of, and none were left in stock. Four more were purchased, and one was sold, leaving three. Two more were sold, leaving one. We bought two more, bringing our total to three again, and at the end of 1931 we had two left. So, during the year 1931 we bought six valves, one lot of four and another of two. These with the nine carried over from the preceding year made a total of 15. The two left at the end of the year thus shows that we sold 13 of this type of valve during 1931.

On this same size, at the end of 1934, or the beginning of 1935, our inventory showed two. At the

present time, the quantity on hand is none, so we have sold 15 valves, the 13 placed in stock thus far plus the two carried over. Now, if we sell the four at present on order, our total sales on this item during 1935 will have been 19.

During the first week of each January our records are corrected with the actual physical inventory count, so that at the beginning of each year our inventory system starts with a clean slate.

Because of the human element factor, errors are bound to creep in here and there, but in the main this system gives us a fairly good basis for our purchases. Furthermore, the completeness of our record on these sheets shows us clearly when an item has not moved for a considerable period of time and indicates that there is not enough demand for it to warrant our carrying it in stock. In such cases, we try to make arrangements with the manufacturer to accept its return on a merchandise credit basis for something of a more salable nature.

We find that we must always be on the alert for items discontinued by manufacturers. Some manufacturers are good enough to advise us beforehand that certain items will be discontinued after a specified date, and thus put us on guard to dispose of our stock with the least possible delay, whereas others expect us to read their catalogs from cover to cover and in that way determine what items are obsolete.

In trying to dispose of these obsolete items, we must depend on our sales force entirely, as the nature of our merchandise differs from that of the grocer or department store man, who can place an advertisement in the daily newspapers and have customers stage a football rush at the bargain counter.

Another problem that confronts the buyer for the supply house is caused by the necessity for placing certain items in stock in larger quantities than usual to serve one particular customer. If this customer should change his manufacturing methods without notifying the distributor, the latter is left "holding the bag," so to speak. If the manufacturer should accept the return of the excess

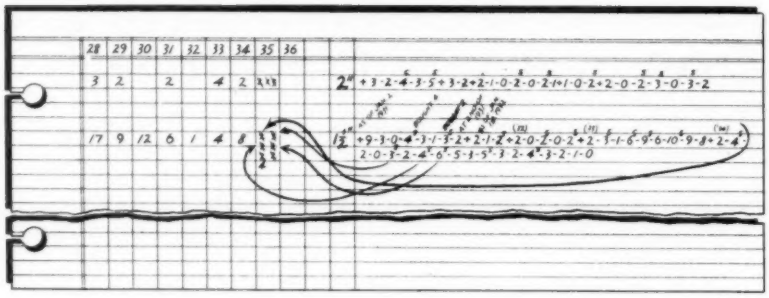


Illustration of method employed by Pattison Company to keep up-to-date stock records—in this instance, those of 2-inch and 1½-inch special plug valves. The system is described briefly on the preceding page

material, it is generally at a reduction from the purchase price.

It has been said that the three virtues of a purchasing agent are honesty, integrity and sales resistance. The first two require no comment. As for the third, it does not pay to offer too much sales resistance except to the high pressure man who is a "one trip salesman." The manufacturers' representatives calling on distributors today are, as a rule, very high grade, and it is quite worth while to lend an ear to what they have to say.

We make it a rule never to put new items in stock until we have canvassed the field and determined whether there is sufficient demand in our territory to warrant taking this action. Furthermore, we look up the financial rating and standing of the company offering the new goods, and if it does not appear good to us, we pass the opportunity by. In canvassing the field on new items before putting them in stock, we have the manufacturer provide us with samples or descriptive literature. We turn these over to our salesmen and they contact their trade and ascertain just how much demand there is. If the response is favorable, we put in a small stock order to begin with, and then as the item or items commence to move, we gradually increase our stock, basing each purchase on sales during the preceding two or three weeks. We must be careful, however, not to stock too heavily if the item is of such a nature that sales will reach the saturation point after our territory has been thoroughly canvassed, and then commence to fall off.

Another problem common to all distributors is that of supplying customers with items not carried in stock. We make it a rule never to turn down an inquiry or an order from one of our regular customers if it is within our power to help him—whether he wants a decelerometer, minimeter or one pound of countersunk head copper rivets. We feel that when a customer gives us his regular business, it is up to us to take care of the odds and ends; and with the directory edition of MILL SUPPLIES and the other buyers' guides we have in our office, we do not usually find much difficulty in filling his requirements for items out of stock.

We avoid dealing with the manufacturer who will not answer correspondence, or on whose promises we cannot depend. We never tell a manufacturer's salesman we have a lower price than he offers unless we actually have it. Common courtesy demands that we give the salesman an audience with the least possible delay, or else notify him when he can interview us.

With the up-to-date trade publications that are published today, including MILL SUPPLIES and many others, the buyer need have no difficulty in becoming acquainted with new items.

In the final analysis, purchasing for an industrial supply house is largely a matter of common sense, keeping your feet on the ground, watching the trends of the times—and bearing constantly in mind the adage, "Goods well bought are half sold," for the supply house buyer, like any other buyer who purchases for resale, is actually in the double role of buyer and seller, and so must conduct his activities.

facts THAT WILL HELP YOU SELL UPSON BOLTS, NUTS, RIVETS, ETC. . .

● What is meant by "Upson"?

"Upson" is now the Upson Nut Division of Republic Steel Corporation—but "Upson" is not a new name in industry. For 72 years, Upson products have been serving industry and have been the choice of discriminating users of headed and threaded products.

● What products does Upson manufacture?

Upson makes bolts and nuts in all standard and special shapes, sizes, alloys and finishes. Standard and special rivets of all kinds. Wire rope clips. Turnbuckles and sleeve nuts. Automotive and railroad special items. Headed and threaded rods, pins and other similar items of every description.

● What are the facilities back of Upson products?

First, the massive resources of Republic Steel Corporation. Second, a modern plant, the finest and most modern heading and threading machinery that money can buy, a staff of highly skilled metallurgists and engineers, and a corps of trained workmen who know the high standards that every Upson product must meet and the reputation that must be maintained.

● What is Upson's reputation?

Upson enjoys as fine a reputation as any manufacturer of quality products in the country. In addition to supplying the hardware trade with uniform, dependable products, Upson also produces for the automotive, railroad and general industries headed and threaded items, both standard and special, of finest quality—items upon which automobiles, railroads and the huge tonnage machines as well as the small precision machines of industry depend for accurate, unfailing, economical service. Time and again, Upson has designed new headed and threaded items to meet the needs of industry or to solve a perplexing problem.

● Why are Upson products so highly uniform?

The steel used in every Upson product is carefully selected and tested by metallurgists; the most modern machines and methods are employed in forging, heading, threading and tapping; heat treatment is accurately controlled by automatic scientific machines to obtain correct grain structure and hardness of the material, as well as needed strength; trained inspectors watch for mechanical defects; special gauges check for diameter and for thread pitch and taper; and a final inspection is given each bolt when the nut is applied by hand.

● To what standards does Upson manufacture bolts, etc.?

To one only—the highest. Even the tiniest of details receives full consideration.

● Why are Upson bolts and nuts easier to install?

The head on every Upson bolt and every nut is absolutely true to size and square, insuring against slippage of wrenches. Threads are correct, clean and sharp—nuts turn on with a twist of the fingers. The steel is unusually strong. Seldom does an Upson product break or twist off in installation.

● Why does Upson make such a complete line?

Upson makes a complete line of more than 5000 standard items that are carried in stock at all times so that customers can obtain any type of headed or threaded item of the finest quality on short notice without aggravating or costly delay.

● Why are Upson products packed in small cartons?

Upson products are packaged in small cartons and plainly labeled for easy handling and identification of the contents by the user—also to protect the contents until used.

● How may Upson bolts be quickly identified?

Every Upson bolt has a small raised "U" on the head.

2 WAYS TO KNOW A GOOD BOLT

Experienced buyers and users of bolts know what to look for in a quality bolt—a full square head, neatly formed; a nut face true with the axis of the bolt; clean, sharp threads; and a nut fit that is neither too tight nor too loose.

But every buyer of bolts can't be expected to know all these details, can't hope to inspect every single piece to make certain that it is just what it should be, and yet can't afford to take chances when the safety of life may hang on a thread. So Upson has provided another way to know a good bolt—by the letter U on the head of the bolt. It's only a little mark, but it means much.

JUST A FEW OF THE 5000 ITEMS IN UPSON'S STOCK

Battery Bolts	Step Bolts
Blank Bolts	Stove Bolts
Bolt Ends	Tire Bolts
Carriage Bolts	Jam Nuts
Cultivator Bolts	Stainless Nuts
Eagle Carriage Bolts	Wing Nuts
Elevator Bolts	Washers
Fancy Head Bolts	Large and Small Rivets
Machine Bolts	Lag Screws
Plow Bolts	Turnbuckles
Stainless Bolts	Wire Rope Clips

Hot Pressed, Cold Pressed and Semi-finished Nuts

UPSON NUT DIVISION
Republic Steel
CORPORATION
CLEVELAND, OHIO

GOOD HOUSEKEEPING LOWERS COSTS

Bulk goods warehouse of Mine and Smelter Supply Company, Denver, is model of efficiency. Orderly arrangement of stocks speeds order handling.

By
E. J. McOSKER
WESTERN EDITOR

IF you're in Denver some day, it will be worth your while to get in touch with H. J. Gundlach, general manager of the Mine and Smelter Supply Company, and arrange for a trip of inspection to this company's bulk goods warehouse down in the city's "Bottoms."

Entering the main warehouse, you will immediately be impressed by its spaciousness, its excellent "daylighting," its broad aisles in "T" formation, and the general orderly and well kept appearance of its stocks. Another feature that will attract immediate attention is the fact that most items in stock are elevated from the floor either on cement platforms or by the racks in which they are stored. This is primarily a precaution against the danger of high water in the "Bottoms" but is also a convenience in loading goods onto and unloading them from trucks.

A railroad siding parallels one side of the warehouse, and goods are moved into the warehouse from the railroad cars through four doors facing the siding, the door selected for a particular operation depending on the type of material being handled.

The first door is known as the pipe door. Pipe is unloaded from cars through an upper opening in the door, and rolled down to the floor level on a pair of rails, its progress being stopped at the desired point by a piece of pipe erected vertically in the floor.

The second door is known as the crane door. Through this door a traveling crane is moved out over the car and picks up and carries the incoming material to its place in the warehouse. Sheet steel, mild steel, in fact all heavy goods requiring and permitting the service of a crane for movement enter the warehouse through this door.

There are then two doors through which smaller material is moved from railroad cars into the warehouse. These goods are transported to their proper stations by hand trucks.

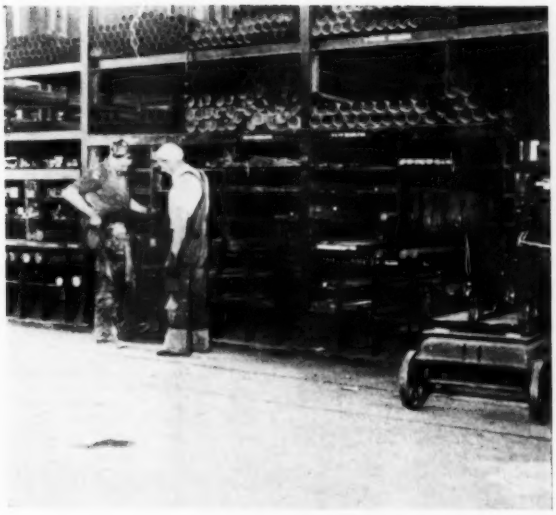
When kegs of nails and other materials must be conveyed to spots across the main aisle, a bridge is swung over the aisle and the goods run across in hand trucks.

Pulleys and other transmission equipment are stored on one mezzanine floor, and shovels, chemicals and other materials on another, and these goods are moved to their floor level by electric elevator. Hoists are available for use at strategic points.

The Mine and Smelter Supply Company is well repaid for the time and effort it expends in its careful and thorough stock-keeping activities by the resulting speed and efficiency in handling goods, accurate knowledge at all times of the extent of stocks of every item and their maintenance in good condition, and, finally, by actually lower warehousing costs.

H. J. Gundlach, general manager of Mine and Smelter, a thorough believer in the advisability of close attention to warehousing and stock handling details.

The efficient crew which keeps things humming in the Mine and Smelter warehouse. Left to right: Fred Miller, foreman; Eric Anderson, Gavin Wilson and Barney Grey.



Above: Pulleys and other power transmission equipment, shovels, chemicals and some other goods are stored on mezzanines, as shown in this view.

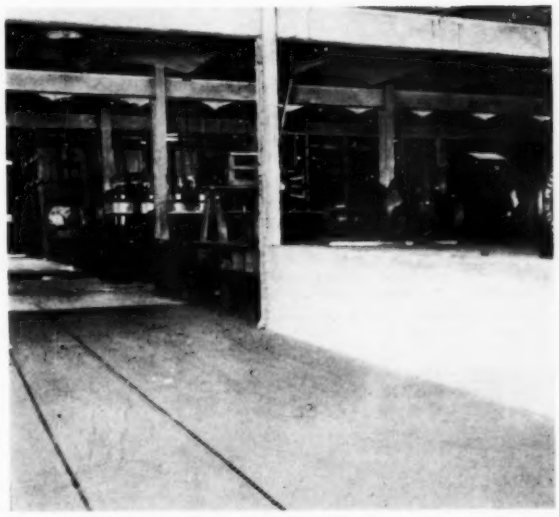
Upper left: Exterior view of the bulk goods warehouse, Mine and Smelter Supply Company.

Upper right: Handily arranged, well marked racks are employed for storing various shapes of steel and boiler tubing. Gavin Wilson, left, and Eric Anderson of the warehouse crew look over some of the material.

Bottom left: General view of a portion of the interior of the warehouse showing one of the two main broad aisles, which allow plenty of room for automobile trucks to pass through. In right foreground is platform on which wire rope is stocked and handled. Note how goods are elevated from floor as a precaution against the dangers of flood water.

Bottom right: Stocks of nails are kept in this orderly way, on an elevated cement platform. In left foreground are racks in which steel plates are stored. The stalls are adjustable as to width. Steel sheets are laid horizontal on shelves.

Above: Bar steel is kept in "A" frames. This view will give some idea of the height of the big warehouse room in portions where the mezzanines do not extend. Spaces between the "A" frames are used to good advantage for storing purposes.



A New Era IN TOOLS

THOUSANDS OF PLANTS CUTTING COSTS, INCREASING EFFICIENCY WITH THESE EFFICIENT, COMPACT, LOW-PRICED DELTA TOOLS

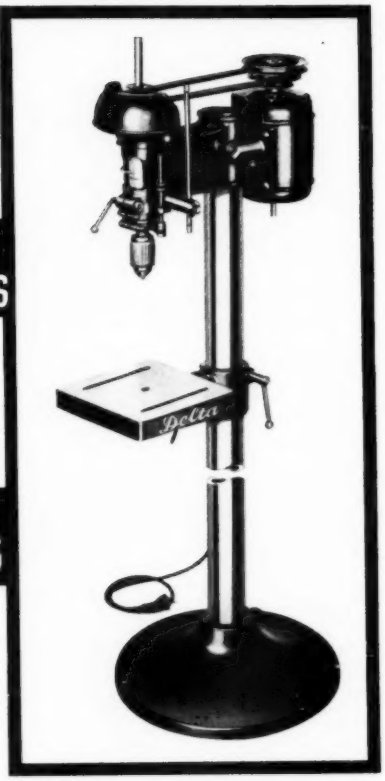
All over the country, in fact all over the world, production managers have discovered that despite their surprisingly low prices, DELTA TOOLS offer unusual efficiency, economy, and flexibility. Some of the largest manufacturers in the United States have adopted DELTA TOOLS for their production lines as well as for special work. Truly these quality tools at economy prices have revolutionized production costs and introduced a new era in plant equipment.

• A FULL LINE OF • SLO-SPEED DRILL PRESSES

The Delta Triple Duty Drill Press line includes both High Speed and Slo-Speed machines, floor type and bench type, single and multi-spindle models, all priced so low and built so well that users continuously marvel at the value they offer. If you want to know the real story of the remarkable performance of Delta Drill presses, ask the men who use them.

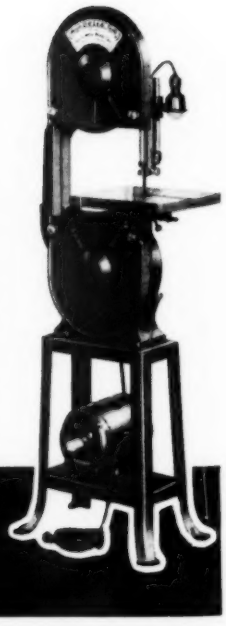
A COMPLETE LINE OF ADVANCED GRINDERS

Not just another line of grinders, but new grinders, advanced, revolutionary, offering many features never before offered in any grinders at any price. The new Twin-Lite Safety Shields and the accurate wheels balanced to 1/100th of inch-ounce are but two of the many improvements that make these grinders of interest to every shop manager.



METAL CUTTING BAND SAW—CIRCULAR SAWS—SCROLL SAWS—SHAPERS

The complete Delta line includes Shapers, Band Saws, Scroll Saws, Grinders, Circular Saws, Drill Presses, Grinders, Mortisers, Routers, Lathes, and a full line of accessories and attachments. Write today for the name of the nearest Delta Dealer and for Catalog describing the entire line of Delta Quality Tools. Address your inquiry to the Industrial Tool Division.



DELTA MFG. CO.
600-634 E. VIENNA AVE.
MILWAUKEE WIS.

DO YOU ANALYZE SALES POLICIES?

By
JOHN H. FREDERICK
Assistant Professor of Marketing
University of Pennsylvania

THE increasing tendency for manufacturers to publicly announce their sales policies to the trade, either through trade associations, through the recently formed American Institute of Fair Competition, or independently, is most significant. Distributors, as well as other wholesale middlemen, have long contended that they were entitled to receive clear statements of the sales policies adopted by manufacturers, so that they could know where they stood in their relationships with their suppliers, and which of these were deserving of their support. In this connection it has been well said that, from the distributor's standpoint, "the sales policy of the manufacturer is of more importance than any temporary price advantage, which one might receive over another, and every effort should be made to encourage manufacturers to openly and publicly state their sales policies."

The period of the depression brought about many changes in distribution. One important change was the increasing use by manufacturers of industrial distributors as an important link in their marketing system. In other words, numerous manufacturers of industrial products changed their sales policies from owned and supported marketing organizations to a policy which contemplated the use of the distributor to carry the cost of maintaining sales contacts. This fact makes it important for distributors to consider what should be a satisfactory sales policy for manufacturers from whom they buy, at least from their own standpoint.

A manufacturer, of course, has the right to select his customers and the distributor has the right to choose his sources of supply. When, however, the two come together to promote the distribution of the manufacturer's products, their interests become mutual and each should do as much as he possibly can to promote such interests. It seems that, at the present time, improvement in the relations between manufacturers and distributors requires that individual distributors be much more particular than they have in the past in examining and analyzing manufacturers' sales policies in order to discover any conditions which may be regarded as unsatisfactory. Distributors, as a class, render a very definite and often indispensable service to manufacturers whose products they sell; and so have a perfect right to expect and to receive the cooperation of these manufacturers in placing their products on a basis as to prices, terms of sale, and conditions of distribution, which will result in the distributor being properly compensated for the service he renders. Some of the sales policies which have recently been made public by manufacturers, with many self-congratulatory statements, are simply ridiculous in that they reveal very little of the actual policy followed by these same manufacturers. Such so-called "statements of sales policy" should be rejected as unsatisfactory by any thinking distributor.

The problem of analyzing manufacturers' sales policies is, of course, complicated by the fact that very few people agree on what an ideal sales policy should be, or even on whether a particular policy is a good one or not. It depends a great deal on the point of view. What may be good for the manufacturer may not be satisfactory from the standpoint of the distributor and *vice versa*. Moreover, what may be a good sales policy for one distributor may not be satisfactory for another. Some manufacturers regard sales policies as no business of the distributor, claiming that the prices and terms and conditions of sale to one customer are not the business and affair of another customer. Such manufacturers feel that they are the best judges of the fairness or unfairness of the method of distribution, or sales policy, which they may wish to follow. As far as this matter goes, most manufacturers and distributors, in the past at least, have been in favor of any method of distribution, or sales policy, that would make the most money for them. Whatever particular method accomplished this end was the best and fairest sales policy in their opinion. There are also numerous manufacturers who supply products to both the industrial and household consumer markets, and who feel that they should, therefore, have different sales policies applying to each division of their business. In many cases this is an absolute necessity. These manufacturers feel that the publication of any sales policy might be confusing unless one understood to which division of their business a particular statement applied.

Most manufacturers' sales policies seem to have two distinct parts. (1) The part dealing with prices and terms. (2) the part dealing with the strategy of distribution. There are numerous points under each part of a particular manufacturer's sales policy into which distributors should inquire in order to assure themselves that a consistent marketing policy will be adopted and lived up to by their source of supply. The most important of these points may be summarized as follows:

1. *Prices and Terms.* Does the manufacturer's price policy enable any purchaser to obtain a lower price for the same quantity of merchandise because of rebates of one kind or another, special discounts, agreements to protect

against price decline, the placing of consigned stocks, the granting of advertising, packing, carting, or special freight allowances? Does the manufacturer suggest and maintain resale prices as much as possible, thus aiding market stabilization? Do all distributors have an equal opportunity to buy on the basis of the same quantity prices? When prices and terms are changed are all distributors given the new prices and terms at once? Are proper means provided for handling returned goods and credits for defective merchandise?

II. *Distribution.* Does a manufacturer's policy, covering the products a particular distributor handles, provide for sale through distributors exclusively in your territory, or are you going to be forced to compete with your own source of supply, due to the fact that direct sales will be made to large industrial users? If exclusive sale through distributors is not contemplated, will the manufacturer give you any sort of price, or other protection on direct orders and inquiries coming from your territory? How does the manufacturer intend to handle orders from non-stock carrying distributors in your territory? What sort of support can the distributor expect from a manufacturer in the way of missionary salesmen? Is any assurance given that distributors will not be changed too frequently, and in any event not without good reason? Does the manufacturer give any assurance that necessary and adequate sales information will be provided regarding his products and their uses? Does the manufacturer give any indication of attempting to avoid over-intensive distribution by limiting the number of distributors who are to handle the same products in a given trading area? Will the manufacturer refuse to sell the distributor who consistently competes in territories allocated to holders of exclusive franchises?

In the final analysis it is the *manufacturer's* responsibility to see that his products are distributed. It is obvious that the same functions must be performed in this distribution whether the manufacturer carries them on alone or in cooperation with distributors. The more efficient the distribution system, the lower the cost of distribution becomes, and the lower the cost of distribution the lower the cost of the product to the industrial user, with consequently greater market possibilities for the product. Manufacturers, distributors, and users will, therefore, all be benefitted by more efficient distribution. It is the writer's opinion that the formulation of sound manufacturer-distributor sales policies will make for more efficient distribution.

JOHN H. FREDERICK

Trade associations and the American Institute of Fair Competition may, however, assemble and publish trade policy statements by manufacturers by the hundreds, but they will be of little avail unless carefully analyzed by distributors individually.

There is some misunderstanding as to the functions and activities of the American Institute of Fair Competition. Some have thought that it was formed to protect the interests of industrial distributors and other types of wholesalers as opposed to manufacturers. This is not the case so far as the writer has been able to ascertain. As far as protecting the interest of the wholesalers and distributors is concerned, the only way that the Institute is attempting to protect such interests is to do away with the secrecy which surrounds some manufacturers' relations with their trade. The Institute broadcasts whatever trade policy statements manufacturers may care to file with it. It is then up to the individual distributor, or wholesaler, to form his own opinion as to whether he is satisfied with the sales policies so filed, and it is his privilege as an individual to either buy or not to buy, whichever he chooses. It is also the privilege of any wholesaler or distributor to write to the Institute and request that any filed sales policy be amplified on certain points or further explained by the manufacturer.

It is the responsibility, therefore, of every distributor to examine the trade policies of the manufacturers of industrial products as they may be made public, to determine how good or how bad they are, and to decide whether or not to continue to do business with the manufacturers issuing the statements.

When distributors have knowledge of the manufacturers' attitude on the points which have been mentioned in this discussion, as well as others which may apply in particular instances, there should be a changed attitude on their part toward the manufacturer. They should then think of their obligations to him, rather than dwelling on his obligations to them. Distributors should realize that it is only by dint of unexcelled service both to manufacturer and customer, which means, among other things the carrying of adequate stocks; and concentrated specialized selling that they can establish such an appreciation of their functions that manufacturers will continue to regard them as the logical channel through which their products should pass on the way to industrial users.

facts THAT WILL HELP YOU SELL REPUBLIC PIPE . . .

● What kinds of pipe does Republic Steel Corporation manufacture?

Republic makes Steel Pipe and Toncan Iron Pipe by both the butt and lap welding and the electric resistance welding processes. Republic Pipe is available in either metal in black or galvanized finish and in standard, extra heavy and double extra heavy weights.

● Why is Republic Steel Pipe of such high quality?

Republic Steel Corporation controls and maintains the quality of the product from the iron ore to the finished pipe. Only ingots of highly uniform, soft, weldable steel are selected, and modern methods under skilled supervision and close control are employed in manufacture.

● Why do workmen prefer Republic Steel Pipe?

Republic Steel Pipe is easy to install. It is straight and true, with clean, sharp threads on pipe and in couplings. It cuts, threads and bends easily, and welds readily by any of the customary methods.

● What is meant by Electric Resistance Welding?

Republic's exclusive process of electric resistance welding is the most modern method of making fine pipe. The metal is flat-rolled, formed cold to a perfect round then welded into pipe by the application of electrical current at the seam. No foreign metal is added. The resulting pipe possesses advantages not obtained in pipe made by the hot processes. The weld is as strong as any part of the wall of the pipe—in fact, so far as strength is concerned, the weld can be forgotten. Electric weld pipe is perfectly round, uniform in diameter and wall thickness, exceptionally strong and entirely free from rust-promoting and valve-clogging scale.

● What is Toncan Iron Pipe?

Toncan Iron Pipe is made of Toncan Copper Molybdenum Iron, which, as the name implies, is an alloy of carefully-refined open hearth iron, copper and molybdenum—with the highest rust-resistance of any ferrous metal in its price class.

● What proof is there of Toncan Iron's ability to resist rust?

Actual proof has been conclusively established in service records during the more than 27 years that Toncan Iron has been in use. Thousands of tests made in Republic's metallurgical laboratories and on test racks under actual weather conditions in various parts of the country, as well as many more tests conducted by customers under the conditions peculiar to their use of the product have given Toncan Iron first place in rust-resistance among the ferrous metals in its price class.

● Does damaging the surface of Toncan Iron Pipe affect its rust-resistance?

No, the rust-resistance of Toncan Iron is not merely "skin-deep," but is uniform throughout the metal. Cutting, threading and bending have no effect on its resistance to rust.

● Where should Toncan Iron Pipe be used?

Toncan Iron Pipe should be used wherever corrosive water, steam, weather, soil or other conditions are so severe as to cause early failure of pipe.

● Does Toncan Iron Pipe cost more than ordinary pipe?

Yes, the initial cost of Toncan Iron Pipe is slightly more—but the longer service it renders and its remarkable trouble-free life repay the user many times over the extra amount paid for it. In the long run Toncan is even cheaper than pipe selling for the same price.

● How may Republic Pipe be identified?

Republic Steel and Electric Weld Pipe are marked with the name REPUBLIC; Toncan Iron Pipe is marked TONCAN. Steel couplings are marked RS; Toncan Iron couplings are marked TM. Toncan Iron Pipe in "black" finish is painted a distinctive blue. In galvanized finish it is painted with two blue stripes.

Something about

REPUBLIC STEEL CORPORATION

Republic Steel Corporation is the third largest producer of steel in the United States and the largest producer of alloy and special steels in the world.

Republic Steel products range from pig iron—the most simple form of commercial ferrous metal—through billets and bars of every type, cold drawn steels, Enduro stainless and heat-resisting steels, pipe, tubing of many kinds, electrical conduit, well casing, sheets, plates, tin plate, electrical steels, nuts, bolts, rivets, wire, nails, tacks, fence posts and many others to mirror finished Enduro stainless steel.

The automobile you ride in, the stove your meals are cooked on, the tin cans you buy food in, the machines that make your clothes—almost everything you use in life may owe something to Republic for the steel that made it possible.

When you sell products of Republic Steel Corporation you are giving your customer something more than he can see in the product. You are giving him quality backed by the reputation for fine steels achieved by Republic and recognized wherever steels are used.

OTHER ADVANTAGES OF

TONCAN COPPER MOLYBDENUM **IRON PIPE**

1. It combines the high rust-resistance of an alloy iron with many of the desirable physical qualities of less resistant ferrous materials.
2. It is one of the most workable of materials. It may be handled like any iron.
3. It welds easily by any of the usually accepted modern methods. The use of Toncan Iron welding rod insures an installation of equal rust-resistance throughout.
4. A uniform and tightly adherent galvanized coating can be applied, thus adding the protection of a heavy coating of zinc to the already high rust-resistance of the base metal.
5. Through its longer, trouble-free life, it has been found to cost far less per year of service. Its use is more than an economy—it is insurance against early pipe failures and costly replacements.

Republic Steel CORPORATION

GENERAL OFFICES . . . CLEVELAND, OHIO

STOCK CONTROL

—the key to an unusual sales record

"Having just the items our customers needed just when they needed them, and in sufficient quantity to take care of the demand"—that was the main reason for a remarkable business gain recorded recently by the Ellfeldt Hardware and Machinists Supply Company, Kansas City, according to Fred A. Ellfeldt, alert and aggressive treasurer and general manager of the firm.

WHENEVER an industrial supply house steps out and makes an unusual sales record, there is an interesting reason behind it.

It may be that business has simply perked up suddenly in the community served by the distributor in question. Or perhaps some particular industry or industries in his territory have gone into heavy production. Very frequently, however, the "secret" lies in the initiative of the house itself—a well conceived and properly conducted sales campaign, or just plain hard plugging.

At any rate, your correspondent was all curiosity as he walked in to see Fred A. Ellfeldt, treasurer and general manager of the Ellfeldt Hardware and Machinists Supply Company, Kansas City, to find out, if possible, why this energetic house had accomplished a remarkable gain in sales not long ago.

"How are we doing?" Mr. Ellfeldt had asked, in submitting his report.

"Swell," was our reply. "But how in the world did you do it?"

We asked this question again as we pulled Mr. Ellfeldt away from his work that morning in Kansas City. Naturally, we expected a "Well, I'll tell you how it was done. Some months ago—"

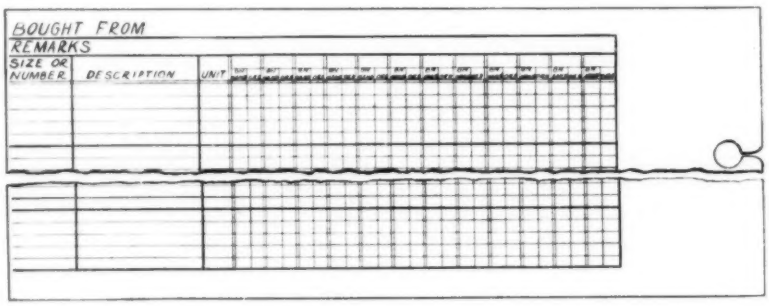
Instead, he reached over to his desk and laid a stock card (the one reproduced herewith) before us.

"There's the answer," he said. He might have said "Up-to-the-minute stock control—having just the items our customers needed just when they needed them, and in sufficient quantity to take care of the demand."

Before elaborating on the workings of this stock control system, it is advisable to explain that the Ellfeldt Hardware and Machinists Supply Company concentrates its sales activities on stainless steel sheets and bars, tool steel, brass products, power transmission equipment and hand and electric tools, and supplies. An unusually high percentage of its business is done over the counter, via telephone and mail.

On cards such as that illustrated herewith, every purchase of every single item carried in stock is recorded. As will be noted, the card has spaces allotted at the top for the name of the manufacturer and for "remarks." At the left are entered the size or number of an item, a brief description of the item and the unit to which it belongs.

Then, on across the sheet are entered all purchases of the item in question that are made throughout the year. In the "On Hand" column are shown purchases for stock. In the "Ord" column are entered the items that are shipped



Through accurate records of stock purchases, made on cards such as this, the Ellfeldt Hardware and Machinists Supply Company effects an up-to-the-minute stock control, which has proved a strong factor in building sales.

direct from the manufacturer to the customer and special orders that are not for the company's stock.

"In beginning this system of stock control, invoices of the various items were taken from the files, and a recapitulation was made going as far back as the records at that time permitted, which took us back to 1928," said Mr. Ellfeldt.

"We then established an average of the stock of each item that should be maintained at all times. The average is re-established each year, as a result of our study of the records of purchases for that year. Annually we start a new card for each item.

"By means of these records we can determine quickly, at any time, just how our stock is moving, hence we are seldom caught short on any item, and, at the same time, we are able to guard against overstocking. Furthermore, if the current records show a steadily increasing demand for an item, the average for this item can be quickly raised. In taking inventory it is only necessary to look at your stock and your records, and the order for stock replenishment is made up in about one-fourth the time it ordinarily consumes to take stock alone."

Because of this exacting control of stock, the company has always been ready to render immediate service on all its customers' requirements. So when business commenced to "come back" some months ago, the effect was immediately apparent in increased sales for Ellfeldt. The customer simply *knew* that Ellfeldt would have what he wanted, if it was within the category of lines sold by this supply house.

Fred Ellfeldt feels that the reputation established by the company with which he is affiliated, for always having what the customer wants in sufficient quantity to take care of his needs is one of the house's greatest assets. At the same time, he and the other members of the organization are thoroughly sold on the value of sales promotion.

One idea employed by this company is that of showing on sample boards one of every single item carried in stock. Since Ellfeldt does a heavy over-the-counter business, these sample boards are seen by many buyers, and serve not only as buying helps to these people, but often lead to sales of additional items—and always emphasize the completeness of Ellfeldt stocks in the lines it sells.

The company has also used monthly mailing cards, either on the general service rendered by the house or on specific lines, with good effect. And scratch pads, showing, at the top, "Products carried in stock for immediate shipment," have been good sales stimulators, as have attractive window displays.

But, in the main, Ellfeldt has concentrated its efforts during the recent trying years on up-to-the-minute stock control and quick, dependable service—and the plan has paid dividends, in sales and profits.

How to Use the DIRECTORY SECTION

THE directory section of this edition of MILL SUPPLIES is divided into an alphabetical list of manufacturers, with their addresses; the trade name section, containing trade names of products which are different from the company name, arranged alphabetically, with the names of the companies employing them and the products to which they apply, and the classified list, in which products are arranged alphabetically and names of manufacturers thereof are grouped under them.

If you want to find the address of a manufacturer, turn to the "Names and Addresses" section.

If you want to know the names of manufacturers of a given item, turn to the "Classified List."

If you want to locate a trade name which is not also a company name, turn to the "Trade Name Index." We do not make it a practice to carry a trade name in the "Trade Name Index" where the trade name, or the first part of it, is the same as the company's name. For the latter, look for the company name under the product heading in the "Classified List."

More complete instructions on how to use each division of the directory section will be found on the first page thereof.

If at any time you cannot find the information you are seeking in the Directory Edition, write MILL SUPPLIES, and we will be glad to assist you.

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TRADE MARK
AND RUBBER COMPANY

CLASSIFIED LIST

of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools, and Manufacturers Thereof.

IN this section products are listed alphabetically and constitute the headings. Under each heading are listed (again alphabetically) the names of manufacturers of the product referred to, together with the cities in which their main offices or general sales offices are established.

In the great majority of cases product headings are arranged alphabetically according to the noun, with the descriptive adjective or adjectives, where there are any, following, for instance, "Bearings, Ball," and "Belting, Rubber." In a comparatively few cases, for reasons considered logical, products are arranged alphabetically according to the descriptive adjective. While we have used cross references extensively, there may be cases where they have been inadvertently omitted. Therefore, we would advise the directory user, if he does not find a certain product listed according to the noun and there is no cross reference, to turn to the place where the item would appear if listed according to the descriptive adjective.

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Motor and Chassis Cleaner for washing oil, grease and dirt from motors or machine parts, and several other articles of garage equipment make up a rapid selling and profitable line. Write for bulletin.

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Detroit, Mich.

Abrasives

(See "Emery and Other Abrasives," "Paper and Cloth, Sand, Emery, etc." "Belting, Abrasive," "Discs, Abrasive," "Stones, Rubbing and Sharpening," "Wheels, Grinding," "Bricks and Sticks, Abrasive," etc.)

Adapter, Power Pipe Threading

Beaver Pipe Tools, Inc., Warren, Ohio.

Adapters, Cutter

Brown & Sharpe Mfg. Co., Providence, R. I.

Adzes

Collins Co., The, Collinsville, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio. (Miners')
Plumb, Fayette R., Inc., Philadelphia, Pa.

Air Chambers, Hydraulic

Farquhar, A. B., Co., Ltd., York, Pa.

Air Guns

Alemite Corporation, Chicago, Ill.
American Injector Co., Detroit, Mich.
Asch & Co., Inc., New York, N. Y. (For car washing)
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Crown Spray Gun Mfg. Co., Los Angeles, Calif.
Dallett Co., The, Philadelphia, Pa.
Essex Brass Corp., Detroit, Mich.
H. B. D. Corp., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Metal Specialties Mfg. Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Alarms, Fire

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Federal Electric Co., Inc., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I. (Automatic sprinkler)
Sterling Siren Fire Alarm Co., Inc., The, Rochester, N. Y.

Alarms, High and Low Water

Barco Manufacturing Co., Chicago, Ill.
Brown Instrument Co., The, Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Schuette & Koerting, Philadelphia, Pa.
Williams Gauge Co., The N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Aluminum—Granulated, Ingots and Solder, Etc.

Aluminum Industries, Inc., Cincinnati, Ohio.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (All)
Federated Metals Corp., New York, N. Y.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Menaugh & Co., Chicago, Ill.
Michigan Smelting & Refining Co., Detroit, Mich. (Ingots and solder)
United American Metals Corp., Brooklyn, N. Y. (Solder only)

Anchors, Concrete and Masonry

(See "Inserts or Anchors, Concrete and Masonry")

Anchors, Guy Line

Handlan-Buck Mfg. Co., St. Louis, Mo.
Hubbard & Co., Pittsburgh, Pa.
Upson-Walton Co., The, Cleveland, Ohio.

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Anchors, Pin and Stone

Conco Engineering Works, Mendota, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.

Anchors, Pipe, Floor and Wall

Arguto Oilless Bearing Co., Philadelphia, Pa.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.

Anchors, Rail

Arguto Oilless Bearing Co., Philadelphia, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hubbard & Co., Pittsburgh, Pa.
Marion Malleable Iron Works, Marion, Ind.
Moak Machine & Tool Co., Port Huron, Mich.
Newhall Chain Forge & Iron Co., New York, N. Y.

Anchors, Screw, Expansion

Arguto Oilless Bearing Co., Philadelphia, Pa.
Arro Expansion Bolt Co., Marion, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Kempton Mfg. Co., New York, N. Y.
Multi-Seal Manufacturing Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Rawlplug Co., Inc., The, New York, N. Y. (Fibre)
Star Expansion Bolt Co., New York, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
United Screw & Bolt Corp., Cleveland, Ohio.

Anti-Creepers, Rail

American Air Filter Co., Inc., Louisville, Ky.
Bethlehem Steel Co., Bethlehem, Pa.
Marion Malleable Iron Works, Marion, Ind.

Anvil Tools

(See "Tools, Anvil")

Anvil and Vise Combined

Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Luther Grinder & Tool Co., Milwaukee, Wis.
Newhall Chain Forge & Iron Co., New York, N. Y.
Prentiss Vise Co., New York, N. Y.
Rock Island Mfg. Co., Rock Island, Ill.
Yost Manufacturing Co., Meadville, Pa.

Anvil, Vise and Drill Combined

Champion Blower & Forge Co., Lancaster, Pa.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Newhall Chain Forge & Iron Co., New York, N. Y.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Bench

Columbian Vise & Mfg. Co., The Cleveland, Ohio.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Millers Falls Co., Greenfield, Mass.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Blacksmiths'

Columbus Anvil & Forging Co., The, Columbus, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Plowmakers'

Columbus Anvil & Forging Co., The, Columbus, Ohio.

Anvils, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Columbus Anvil & Forging Co., The, Columbus, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Aprons, Asbestos

Chicago Eye Shield Co., Chicago, Ill.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Johns-Manville, New York, N. Y.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland, Ohio.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Aprons, Canvas and Duck

Chicago Eye Shield Co., Chicago, Ill.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Industrial Gloves Corp., Danville, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Robinson, D., & Sons, Detroit, Mich.
Safety Equipment Service Co., Cleveland, Ohio.

Aprons, Leather

Atlantic Manufacturing Co., Wilmington, Del.
California Tanning Co., St. Louis, Mo.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cook, H. N., Belting Co., San Francisco, Calif.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Ireson, Charles L., Co., Philadelphia, Pa.
Nott, W. S., Co., Minneapolis, Minn.
Philadelphia Belting Co., Philadelphia, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Aprons, Rubber, Industrial

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Dallett Co., The, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Gross Rubber Co., Sharon, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Mine Safety Appliances Co., Pittsburgh, Pa.
Murdock, M. F., Co., The, Akron, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Republic Rubber Co., The, Youngstown, O.
Safety Equipment Service Co., Cleveland, Ohio.

Aprons, Welders'

Chicago Eye Shield Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Ideal Face Shield Co., The, Columbus, O.
Industrial Gloves Corp., Danville, Ill.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland, Ohio.

Arbors, Drill Chuck

Champion Blower & Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Collis Co., The, Clinton, Iowa.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Jacobs Manufacturing Co., The, Hartford, Conn.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
S.K.F. Industries, Inc., Philadelphia, Pa.
Skinner Chuck Co., The, New Britain, Conn.
Stanley Electric Tool Division, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Whitman and Barnes, Inc., Detroit, Mich.

Arbors, Lathe

Alvord-Polk Tool Co., Millersburg, Pa.
Chicago Tool & Engineering Co., Chicago, Ill.
Collis Co., The, Clinton, Iowa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Trevor Mfg. Co., Lockport, N. Y.
Union Manufacturing Co., New Britain, Conn.
Whitman and Barnes, Inc., Detroit, Mich.

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Chicago Tool & Engineering Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Arbors, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hermance Machine Co., Williamsport, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Penn.
Nelson Bros. Co., Saginaw, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Sundstrand Machine Tool Co., Rockford, Ill.

Arbors, Shell Reamer

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Chicago Tool & Engineering Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Gairing Tool Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Arches, Boiler

Farquhar, A. B., Co., Ltd., York, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Industrial Gloves Corp., Danville, Ill.
McLeod & Henry Co., Troy, N. Y.

Asbestos Products

(See specific item desired)

Asphalt Roofing

(See "Roofing")

Attachments

(Refer to Specific Type of Attachment Desired, such as "Drilling Attachments," "Lathe Attachments," "Milling Attachments," "Grinding Attachments," "Tapping Attachments," etc.)

Augers, Hollow

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Millwrights'

Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Miners'

Leetonia Tool Co., The, Leetonia, Ohio.

Augers, Pipe and Sewer, Flexible

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Rapid Spring Co., The, Pittsburgh, Pa.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Augers and Diggers, Post Hole

Iwan Brothers, South Bend, Ind.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Augers, Ship

Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Well or Earth

Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Red Top Auger Co., The, Birmingham, Ala.

Awls, Belt

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.

Awls and Reamers, Belt, Combination

American Swiss File & Tool Co., Elizabeth, N. J.
Schieren, Chas. A., Co., New York, N. Y.

Awls, Scratch, Marking

American Swiss File & Tool Co., Elizabeth, N. J.
Crescent Tool Co., Jamestown, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Awning Blocks

(See "Blocks, Awning")

Awnings, Window

Hettrick Mfg. Co., The, Toledo, Ohio.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.

Axes and Hatchets

All States Roofers Equipment & Material Co., Chicago, Ill.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Collins Co., The, Collinsville, Conn.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
General Sales Co., Norwich, N. Y.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Leetonia Tool Co., The, Leetonia, Ohio.
Mann Edge Tool Co., Lewistown, Pa.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
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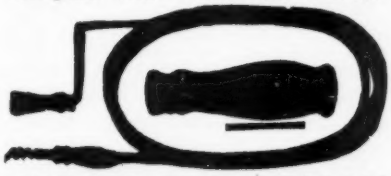

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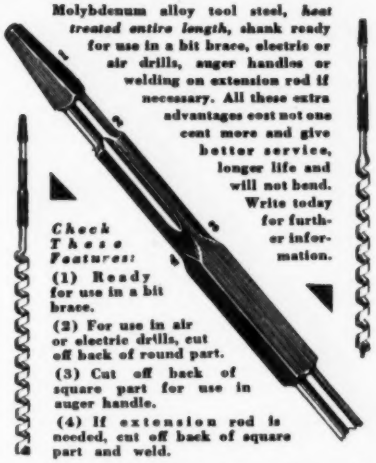

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(See "Metal, Babbitt")

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Canfield, M. C., Sons Co., Newark, N. J.
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Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bags, Canvas, Shipping

McElmoyl & Co., Inc., Groveville, N. J.

Bags, Coal

Atlantic Manufacturing Co., Wilmington, Del.
Buffalo Batt & Felt Corp., Depew, N. Y.
Gross Rubber Co., Sharon, Pa.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.

Bags, Dust-On

Raniville, F., Co., Grand Rapids, Mich.

Bags, Mechanics' Tool

Atlantic Manufacturing Co., Wilmington, Del.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Empire Level Manufacturing Co., Milwaukee, Wis. (Canvas tool bags for plumbers, etc.)
Field, R. B., & Co., Worcester, Mass.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Stevens Walden, Inc., Worcester, Mass.

Bags, Mail

Cook, H. N., Belting Co., San Francisco, Cal.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, Ohio.

Balancing Machines or Ways

(See "Machines or Ways, Balancing")

Balers, Paper

(See "Presses, Baling")

Balers—Sack, Garment, Rag, Etc.

Cardwell Machine Co., The, Richmond, Va.
Economy Baler Co., Ann Arbor, Mich.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Rowe Manufacturing Co., Galesburg, Ill.

Balls, Flag Pole, Copper

Boekel, Wm., & Co., Philadelphia, Pa.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Harris, Arthur, & Co., Chicago, Ill.

Balls, Fuller

Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., Passaic, N. J.
Rhopac Products Corp., Chicago, Ill.

Balls, Steel

Atlas Ball Co., Philadelphia, Pa.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hoover Steel Ball Co., Ann Arbor, Mich.
National Transit Pump & Machine Co., Oil City, Pa.
Nice Ball Bearing Co., Philadelphia, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.

Balls, Tank

Boekel, Wm., & Co., Philadelphia, Pa. (Copper)
Clow, James B., & Sons, Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., Passaic, N. J.

Bands, Band Saw

American Saw & Mfg. Co., Springfield, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Holcomb, A. L., Co., Grand Rapids, Mich.
Home Rubber Co., Trenton, N. J.
Jones Superior Machine Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N.J.
Millers Falls Co., Greenfield, Mass.
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Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Racine Tool & Machine Co., Racine, Wis.
Republic Rubber Co., The, Youngstown, O.
Sandvik Steel, Inc., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N.J.

Bands, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
American Stamping Co., Battle Creek, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stevens Walden, Inc., Worcester, Mass.

Bands, Pipe Covering

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ruberoid Co., The, New York, N. Y.

Barrels, Burnishing

Baird Machine Co., The, Bridgeport, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.

Barrels, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
Baird Machine Co., The, Bridgeport, Conn.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.

Barrels, Shop

Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Meurer Steel Barrel Co., Inc., Newark, N. J.
Republic Steel Package Co., The, Cleveland, Ohio.

Barrels and Drums, Steel

Chapin, R. E., The, Batavia, N. Y.
Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber lined)
Meurer Steel Barrel Co., Inc., Newark, N. J.
Republic Steel Package Co., The, Cleveland, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.

Barrels and Mills, Tumbling

American Foundry Equipment Co., Mishawaka, Ind.
Baird Machine Co., The, Bridgeport, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Tessmer Machine & Tool Co., Detroit, Mich.

Barrels, Working

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Midland Mfg. Co., Ft. Worth, Tex.
Mountville Mfg. Co., Mountville, Penn.

Barrows

American Steel Scraper Co., The, Sidney, Ohio.
Bryan Wheelbarrow Co., Bryan, Ohio.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.

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The Original

Pressed Steel Tray WHEELBARROW

Note These Features

Tubular Steel Handles
Pressed Tray with Reinforced Edges
Riveted Channel Legs with heavy shoes
Malleable Iron Brackets of sand proof construction
Non-Slip Device positively prevents tray from sliding forward on frame and coming in contact with wheel

Made in capacities of 3, 4 and 6 cubic feet
Wheels 16" diameter, of fabricated steel, malleable iron or with 16" x 4" single tube type pneumatic tires

ASK FOR CATALOG No. MS-32 covering wheelbarrows and other Jackson Pressed Steel Products. Sold by industrial distributors and dealers in contractors' equipment.

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Harrisburg, Pennsylvania
ESTABLISHED 1876

Jackson Manufacturing Co., Harrisburg, Pa.
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Sidney Steel Scraper Co., The, Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows—Coal, Coke and Ash

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Concrete

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
General Wheelbarrow Co., The, Cleveland, Ohio.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Contractors'

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.

Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Foundry and Furnace Charging

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Garden and General Utility

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Mountville Mfg. Co., Mountville, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Measuring

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Mine

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Mortar

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Ore

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Pig Iron

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Tubular

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

BEARING BRONZE Headquarters

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Plain Cast Bronze
General Purpose Bronze
Cast Bronze Graphited
Plain Sheet Bronze
Sheet Bronze Graphited
Electric Motor Service

BEARINGS
Bronze-Backed Babbitt-Lined
Steel-Backed Babbitt-Lined

BARS
Johnson UNIVERSAL Completely Machined solid and cored

Lead and Tin Base Babbitts
Car Brasses
Locomotive and Mill Bronzes
Miscellaneous Rough or Machined Castings

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Johnson Maintenance bronzes sold through Industrial Supply Distributors.

JOHNSON BRONZE
Factory and General Offices New Castle, Pa. • Branch Offices and Warehouses in Principal Cities

Bars, Boring

Chicago Tool & Engineering Co., Chicago, Ill.
Crucible Steel Co. of America, New York.
Gairing Tool Co., Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kelly Reamer Co., Cleveland, Ohio.
McCrosky Tool Corp., Meadville, Pa.
Madison Manufacturing Co., Muskegon, Mich.
Scully-Jones & Co., Chicago, Ill.
Van Norman Machine Tool Co., Springfield, Mass.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Bars, Bronze, Cored and Solid

Allen, W. D., Mfg. Co., Chicago, Ill.
Aluminum Industries, Inc., Cincinnati, O.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Buffalo Foundry & Machine Co., Buffalo.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., Dayton, Ohio.
Everitt Co., The, Boston, Mass.
Edna Brass Mfg. Co., The, Cincinnati, O.
Federated Metals Corp., New York, N. Y.
Fredericksen Co., Saginaw, Mich.
Great Lakes Chemical Works, Detroit.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Magnolia Metal Co., Elizabeth, N. J.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.

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645 popular sizes of ready-to-use bushings—64 sizes of "Lubrico-Premier" cored and solid bronzes, fully finished, in the new economical 7-inch length—and 154 sizes of 13 inch cored and solid bars are carried in stock for your convenience. Send for the stock cards. Complete facilities are provided for handling customers' specifications for unusual sizes or special metal analyses accurately and promptly. Refer your bushing requirements to the address given below. Let us show you that prompt shipment and wide experience can save you time and money.

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Card L—Buckeye Bronzes
Card R—"Lubrico-Premier" Bronzes
Sent on request. Write today.

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Atlas Brass Foundry, Inc. Los Angeles, California
Bobbier Bearing Company Newark, New Jersey
Canadian Bearing Supply Hamilton, Ont., Canada
Carter, Milchman & Frank, Inc., New York, N. Y.
Cutter, Wood & Sanderson Company, Boston, Mass.
Howard Brass & Copper Co., Milwaukee, Wisc.
Indianapolis Machinery Supply Company, Indianapolis, Indiana
Industrial Supply Co. Philadelphia, Penna.
Lindquist Hardware Co. Bridgeport, Connecticut
S. H. Pooley Belting Co. Buffalo, New York
Sidney B. Roby Company Rochester, New York
St. Louis Machinists Supply Co., St. Louis, Mo.
Slaysman & Company Baltimore, Maryland
Smith-Courtney Company Richmond, Virginia
R. R. Street & Co., Inc. Chicago, Illinois
Strang, Carlisle & Hammond Co., Cleveland, O.
Tranter Supply Company Pittsburgh, Penna.

Milwaukee Valve Co., Milwaukee, Wis.
Moccasin Bushing Co., Chattanooga, Tenn.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Premier Brass Corp., St. Louis, Mo.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Scovill Mfg. Co., Waterbury, Conn. (Solid only)
Sumet Corp., Buffalo, N. Y.
United American Metals Corp., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Bars, Claw, Wrecking

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clark Manufacturing Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hubbard & Co., Pittsburgh. Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Marshalltown Trowel Co., Marshalltown, Iowa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Bars, Crow, Pinch and Pry

American Swiss File & Tool Co., Elizabeth, N. J.
Clark Manufacturing Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Bars, Grate

Elkhart Iron Works, Elkhart, Ind.
Farquhar, A. B., Co., Ltd., York, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.

Refer to the

"Trade Name Index"

for trade names which are different from the company's name

Marion Machine, Foundry & Supply Co., Marion, Ind.
Morse Grate Bar Co., Inc., Providence, R. I.

Bars, Pipe Hanger Extension

Newbury Manufacturing Co., Monroe, N.Y.

Bars, Post Hole Digging

Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Bars, Tamping

Clow, James B., & Sons, Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.

Base Plates

(See "Plates, Base")

Bases, Motor

American Pulley Co., The, Philadelphia, Pa.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Bases, Oil Cup

Allen, W. D., Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.

Basins, Blow-Off

(See "Catch Basins, Blow-off, Cast Iron")

Basins, Wash

Clow, James B., & Sons, Chicago, Ill.
Fords Porcelain Works, Perth Amboy, N. J.
Manufacturing Equipment & Engineering Co., Framingham, Mass.

Baskets, Canvas

McElmoyl, W. J., & Co., Inc., Groveville, N. J.

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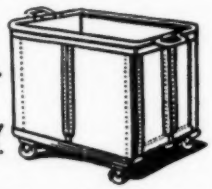

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1/8- to 21-inch Bore
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Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Cambridge Wire Cloth Co., Cambridge, Md.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Littleford Bros., Cincinnati, Ohio.
Palmer-Bee Co., Detroit, Mich.
Roebling's, John A., Sons Co., Trenton, N. J.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Baskets, Mill

Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vucanized Fibre Co., Kennett Square, Pa.
Littleford Bros., Cincinnati, Ohio.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Baskets, Towel

Continental-Diamond Fibre Co., Newark, Del.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.

Baskets, Waste

Angle Steel Stool Co., Plainwell, Mich.
Buffalo Wire Works Co., Inc., Buffalo.
Cyclone Fence Co., Waukegan, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.
Washburn Co., The, Worcester, Mass.
Wheeling Corrugating Co., Wheeling, W. Va.

Bearings, Babbitt

(See "Metal, Bearing, Anti-Friction and Babbitt")

Bearings, Ball, Lineshaft

Ahlberg Bearing Co., Chicago, Ill.
American Pulley Co., The, Philadelphia, Pa.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, New York
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris & Reed Mfg. Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
McGill Mfg. Co., Valparaiso, Ind.
Mueller Brass Co., Port Huron, Mich.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
S.K.F. Industries, Inc., Philadelphia, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Ball, Machinery

Ahlberg Bearing Co., Chicago, Ill.
Auburn Ball Bearing Co., Rochester, N. Y.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris & Reed Mfg. Co., Chicago, Ill.
Hoover Steel Ball Co., Ann Arbor, Mich.
Hudson-Sharp Machine Co., Green Bay, Wis.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
McGill Mfg. Co., Valparaiso, Ind.
Messinger Bearings, Inc., Philadelphia, Pa.
Nice Ball Bearing Co., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., Philadelphia, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Bronze

Aluminum Industries, Inc., Cincinnati, Ohio.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Buckeye Brass & Mfg. Co., The, Cleveland.
Buffalo Foundry & Machine Co., Buffalo.
Bunting Brass & Bronze Co., Toledo, Ohio.
Cadman, A. W., Mfg. Co., Pittsburgh, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Fredericksen Co., Saginaw, Mich.
Great Lakes Chemical Works, Detroit.
Harris, Arthur, & Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Magnolia Metal Co., Elizabeth, N. J.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
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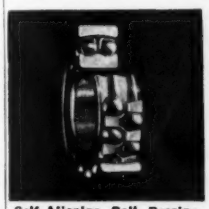
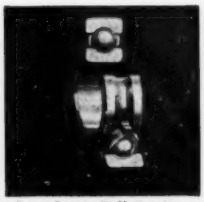
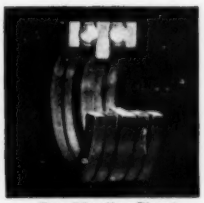
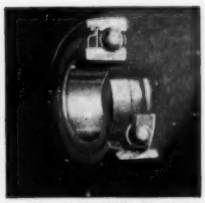

Self-Aligning Ball Bearing

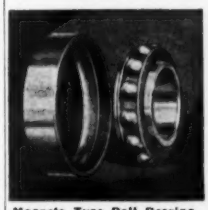

Deep Groove Ball Bearing

One Direction Thrust Bearing


Two Direction Thrust Bearing

Angular Contact Ball Bearing


Felt Seal Ball Bearing


Magnete Type Ball Bearing

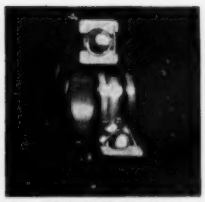
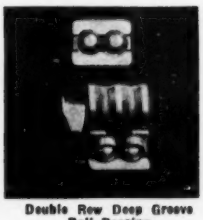


Plate Ball Bearing

Double Row Angular Contact Ball Bearing


Double Row Deep Groove Ball Bearing

Oberdorfer, M. L., Brass Co., Syracuse.
Palmer-Bee Co., Detroit, Mich.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sumet Corp., Buffalo, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Torrington Mfg. Co., The, Torrington, Conn.
Williams, E. A., & Son, Jersey City, N. J.
Wood's, T B., Sons Co., Chambersburg, Pa.

Bearings, Bronze, Babbitt Lined

Atlas Brass Foundry Co., The Columbus, O.
Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Great Lakes Chemical Works, Detroit.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
National Lead Co., New York, N. Y.
Palmer-Bee Co., Detroit, Mich.
Prier Brass Mfg. Co., Kansas City, Mo.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.

Bearings, Eccentric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Filer & Stowell Co., The Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings and Bushings, Electric Motor

Bearium Metals Corp., Rochester, N. Y.
Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Fafnir Bearing Co., The, New Britain, Conn.
Hyatt Roller Bearing Co., Newark, N. J.
Johnson Bronze Co., New Castle, Pa.
Norma-Hoffman Bearings Corp., Stamford, Conn.
Roller Bearing Co. of Amer., Trenton, N. J.
S.K.F. Industries, Inc., New York, N. Y.
Shafer Bearing Corp., Chicago, Ill.
Sumet Corp., Buffalo, N. Y.
Timken Roller Bearing Co., The, Canton, O.

Bearings, Oilless

American Injector Co., Detroit, Mich.
Arguto Oilless Bearing Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Continental-Diamond Fibre Co., Newark, Del.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J. (Hard rubber)
Mechanical Devices Co., Bloomington, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.

Bearings, Post

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Pressed Steel

Nice Ball Bearing Co., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.

Bearings, Quill

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
McGill Mfg., Co., Valparaiso, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Roller, Lineshaft

Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
McGill Mfg., Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Timken Roller Bearing Co., The, Canton, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bearings, Roller, Machinery

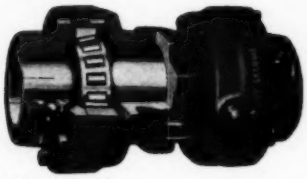
American Roller Bearing Co., Pittsburgh.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoover Steel Ball Co., Ann Arbor, Mich.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
McGill Mfg., Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Messinger Bearings, Inc., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bearings, Self-Lubricating

Ahlberg Bearing Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Basic Mineral Corp., Pittsburgh, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.

MEDART
TIMKEN
HANGER BEARINGS
and
PILLOW BLOCKS

All types for industrial applications. Straight sleeve—taper sleeve—direct mounted.



Medart-Timken Bearings are of rugged design, suitable for heavy head shafts of all kinds. Ball and socket design of housings makes them self-aligning. Expansion types available where expansion and contraction of shafts must be given consideration.

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MORE THAN 1200 TYPES AND SIZES

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Spherical Roller Bearing

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Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Lignum Vitae Products Corp., Jersey City.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Devices Co., Bloomington, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
National Bearing Metals Corp., St. Louis.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings—Shaft—Chain, Collar, Ring and Wick Oiling

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia, Pa.
Arguto Oilless Bearing Co., Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill. (Ring and wick oiling)
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago. Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Shaft, Step and Wall

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Lignum Vitae Products Corp., Jersey City.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Take-Up

Ahlberg Bearing Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co.. The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill. (Conveyor)
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Thrust

Ahlberg Bearing Co., Chicago, Ill.
American Roller Bearing Co., Pittsburgh.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Boston Gear Works, Inc., North Quincy, Mass.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoover Steel Ball Co., Ann Arbor, Mich.
Hoppes Water Wheel Co., Springfield, Ohio.
Huron Industries, Inc., Alpena, Mich.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown. N. Y.
McGill Mfg. Co., Valparaiso, Ind.
Medart Co., The, St. Louis, Mo.
Messinger Bearings, Inc., Philadelphia, Pa.
Nice Ball Bearing Co., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., Philadelphia, Pa.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Vertical

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, Ohio.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
Medart Co., The, St. Louis, Mo.
Orange Roller Bearing Co., Orange, N. J.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bells

(See "Gongs and Bells")

Belt Cement

(See "Cement, Belt")

Belt, Cotton Gin Distributor, Rubber Spiked

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.

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"The Magazine of Industrial Distribution"

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Balata and Textile
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Water-proof, weather-proof, sanitary, strong, and durable. The best all-round belt for driving, conveying, and elevating.

"EASTON" Solid Woven Cotton Belting
For bakeries, candy factories, flour mills, package conveyors, etc., and for general light conveying. Largest stock and greatest number of sizes available for quick deliveries.

"AMPERE" Canvas Stitched Belting
Recommended for transmission or elevating and for conveying minerals, packages, foodstuffs, etc., also for agricultural purposes.

"VICTOR" Thresher and Tractor Belts
Made of extra-heavy duck, specially woven and thoroughly waterproofed. Economical and dependable belts for agricultural use.

"FLEXMORE" Balata Belting
An extremely flexible belting, made of specially-woven duck—for high speeds and for use over very small pulleys.

"PENNTEX" Solid Interwoven Belt
A super-belt for slow, difficult, hard-pull power drives. Furnished single, double, and triple.

"WEARTEX" Solid Interwoven Belt
A super-belt for conveying and elevating purposes. Can be furnished with acid or heat resisting impregnation and coating. Also made with "Pile Face" cover. All plies from 3 to 8.

Also "Palmetto" Solid Woven Cotton Belting, "Victor" Balata Links and Rings for Flexible Couplings, "Flexmore" Balata Sieve Lining, "Victor" Balata Valve Discs for Hydrants and Pumps, "Workwell" Sifter Brush Belting and Brushes, Linen Duck (Flax Canvas), and many other items.

VICTOR BALATA AND TEXTILE BELTING COMPANY

53 Park Place - NEW YORK
345 West Austin Ave. - CHICAGO

FACTORIES: EASTON, PENNSYLVANIA

Why is VEELOS Balata Belting So Strong?

Here are our reasons for saying: "VEELOS Balata Belting is the strongest belting made."

We use the finest American long staple cotton—a superior grade, having extra long fibres. From this cotton we make a yarn so strong that bare hands cannot break it. We weave the yarn into 34-ounce duck with a tensile strength of 620 pounds per ply per inch in width.

We treat this closely woven fabric with balata—a tough, tropical gum ideal for our purpose. The gum is forced into the canvas under heavy pressure, thoroughly saturating and coating it. After the plies are made, by folding, they are so thoroughly welded together by heat and pressure that the finished belting is of practically homogeneous construction. Wear cannot separate the plies, moisture cannot work in. Tension, width, thickness and balance are uniform.

That is why VEELOS Balata Belting is the Standard of the world.

Why is KEYSTONE Canvas Stitched Belting So Economical?

Keystone belting is made from standard 32 ounce duck. It is impregnated with a high grade oil and wax compound that waterproofs the fabric and gives it gripping surface and great durability. There is no other belting made, at anywhere near the price, that can compete with Keystone for sturdy performance at low cost.

Manheim Mfg. & Belting Co.
Manheim, Pa.

New York, N. Y. 350 Broadway — Chicago, Ill. 407 S. Dearborn St.

** See VEELOS "V" Belt Advertisement, page 41.*

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Write for discounts and other information about VEELOS Balata Belting and KEYSTONE Canvas Stitched Belting.

Globe Woven Belting Co., Inc., Buffalo, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.

Belt Dressing
(See "Dressing, Belt")

Belt Hooks, Lacers and Lacings
(See "Fasteners and Hooks, Belt," "Lacers, Belt," and "Lacing, Belt")

Belt Sticks for Putting Belts on Moving Pulleys
(See "Sticks, Belt")

Belt Lacing Tools
(See "Tools, Belt Lacing")

Belting, Abrasive
Barton, H. H., & Son Co., Troy, N. Y.
Behr-Manning Corp., Troy, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Cleveland Container Co., The, Cleveland, O.
Clover Mfg. Co., Norwalk, Conn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Walls Sales Corp., New York, N. Y.

Belting, Balata
Allentown Leather Belting Co., Allentown, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Himmelein & Bailey, Inc., Camden, N. J.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Manheim Mfg. & Belting Co., Manheim, Pa.
Marion Machine Foundry & Supply Co., Marion, Ind.
Missouri Belting Co., St. Louis, Mo.
Rahman, Geo., & Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting and Brushes, Sifter Brush
(See "Sifter Brush Belting and Brushes")

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to Make

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However, There May Be Instances Where You Do Not Find the Information You Are Seeking

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MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

Belting, Canvas, Stitched

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Chesapeake Belting Co., Baltimore, Md.
Chicago Belting Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Gandy Belting Co., Grand Rapids, Mich.
Hettrick Mfg. Co., The, Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Imperial Belting Co., Chicago, Ill.
Link-Belt Co., Pacific Division, San Francisco, Calif.
McIlroy Belting Works, Hammond, Ind.
Main Belting Co., Philadelphia, Pa.
Manheim Mfg. & Belting Co., Manheim, Pa.
Marion Machine Foundry & Supply Co., Marion, Ind.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Palmer-Bee Co., Detroit, Mich.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Rahman, Geo., & Co., The, New York.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Chain or Link

Cambridge Wire Cloth Co., Cambridge, Md.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Belting, Combination Leather and Fabric

Allentown Leather Belting Co., Allentown, Pa.
Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Mountville Mfg. Co., Mountville, Pa.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Whiting Leather & Belting Co., Long Island City, N. Y.

TON TEX
Reg. U. S. Pat. Off.

A LEADER IN ITS FIELD

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The Belting that Meets Transmission Needs

TON-TEX

The best all-purpose Transmission Belt. Adapted as well to Conveying purposes. Flexible, full of life, resilient, powerful in tensile strength and not affected by water, steam, moisture or dampness. Made 48 in. wide by 325 ft. long. Can be cut to desired widths. Runs straight and true without fraying. Dealers will find TON-TEX profitable to handle and satisfactory from a repeat order standpoint.

TON-TEX CORP.

GRAND RAPIDS CHICAGO NEW YORK

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HETTRICK—The name that is known throughout the country for quality canvas Belting. American factories, shops, and farms have been using HETTRICK Belting for transmitting power, conveying, and elevating for over forty years. Another reason why distributors find HETTRICK Belting easy and profitable to sell.

Industrial Belts • *Agricultural Belts*

HETMACO

Especially made, strong and flexible, prestretched, power transmission belting. HETTRICK exclusive treatment makes it highly resistant to load shock, dusty and oily conditions. Suitable for all drives, except over small high speed pulleys.

MALABAR

A dependable belt under the most severe conditions. Ideal for general conveying and elevating service, slide or roller bed. A better belt for handling all materials.

BLACK BULL

A grade of black belting developed for longer service at no extra cost, withstands and takes the "tough going". Thoroughly saturated and tempered by HETTRICK'S exclusive process. The most economical belt for all farm uses.

RED BULL

Compounded with vegetable oils and waxes to assure thorough lubrication and prevent slipping and drying out. Every up-to-date improvement for satisfactory service.

• *ENGINEERING DEPARTMENT* •

A service to our trade, which extends to every field of industry, and our distributors. An engineering department that analyzes conditions, under which belting must operate, and offers suggestions and recommendations. Take advantage of this service. Write for further information.

THE HETTRICK MANUFACTURING CO.

TOLEDO, OHIO PORTLAND, OREGON

Dallas, Omaha, San Francisco

Belting, Composition

Allentown Leather Belting Co., Allentown, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Burrell Belting Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Products Co., New York, N. Y.
Fabreeka Products Co., Inc., Boston, Mass.
Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Mountville Mfg. Co., Mountville, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Ton-Tex Corp., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Conveyor and Elevator

Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
American Belting Companies, The, Baltimore, Md.
Atlantic Manufacturing Co., Wilmington, Del.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Cambridge Wire Cloth Co., Cambridge, Md.
Chicago Belting Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Products Co., New York, N. Y.
Fabreeka Products Co., Inc., Boston, Mass.
Franklin Cotton Mill Co., The, Cincinnati, Ohio.
Gandy Belting Co., Grand Rapids, Mich.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Hunter, James, Machine Co., North Adams, Mass.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Johnson Belting Co., New York, N. Y.
Link-Belt Co., Chicago, Ill.
McIlroy Belting Works, Hammond, Ind.
McLanathan, F. W., & Son, Lawrence, Mass.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Wire Cloth Co., Detroit, Mich.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.
O'Meara Belting Co., Omaha, Neb.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Belting Co., Philadelphia.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Stanley Belting Corp., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Abestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa. (Asbestos)
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton.
Wickwire Spencer Steel Co., New York.

Belting, Cotton, Solid Woven

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.

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Quality Service

SOLID WOVEN WHITE COTTON BELTING
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BOLTING CLOTH WEBBING
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OTHER BELTING AND WEBBING SPECIALTIES

GLOBE Products are handled by leading Industrial Supply Houses thruout the country.
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Waterproof Leather Belting
"Duxbak" Waterproof Cement
Solid Round Leather Belting
"American Patent Joint"
Link Leather Belting
Round Twist Leather Belting
Schieren Belt Lacing
Schieren Belt Cement
"Flyfoot" Belt Dressing
"Natural Grip" Belt Dressing
Textile Leather Specialties
Schieren Leather Packings
and our
"Bull's Head," "Royal Extra,"
"Eagle," "White Oak"
and
"Dixie" Brands of Leather Belting
each of a grade and type suited to certain definite requirements of use, in Power Transmission.

for modern industrial requirements

INCREASED sales and repeat business are only possible when you deal with a house whose name is known and whose goods have a reputation for highest quality. The rigid control that we exercise in the manufacture of Schieren Products is your safeguard in buying these products and your aid in selling them. You can always sell them with definite assurance that you are giving the best that money can buy and that their dependability will result in constantly increased profits through new and repeat business for you.

Since 1868, through strict adherence to this policy of Quality, we have built up a world wide business in the manufacture and sale of leather belting and leather specialties for use by industry. Their universal acceptance is proof of their dependability and "salability."

Chas. F. Schieren Company
42 FERRY STREET NEW YORK

Oak Leather Tanneries: Bristol, Tenn.

REG. TRADE MARK GANDY'S AMERICAN COTTON BELTING U.S. PAT. OFFICE

Not to be confused with belts similar in appearance. Gandy is protected against infringements by law.

THE GANDY BELT
Identified by the Green Edge and the Registered Trade Mark

A permanently flexible belt for Power Transmission, Elevating and Conveying. Sold through Distributors for all Agricultural and Industrial Belting needs.

GANDY BAR BELT DRESSING
GANDY ELASTIC RED COATING

GANDY BELTING CO.
GRAND RAPIDS CHICAGO NEW YORK

Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Duryea Products Co., New York, N. Y.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Franklin Cotton Mill Co., The, Cincinnati.
Gandy Belting Co., Grand Rapids, Mich.
Globe Woven Belting Co., Inc., Buffalo.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Missouri Belting Co., St. Louis, Mo.
O'Meara Belting Co., Omaha, Neb.
Palmer-Bee Co., Detroit, Mich.
Rahman, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Stanley Belting Corp., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y. (Also inter-woven)
Webb, J. A., Belting Co., Inc., Buffalo.

Belting, Hair

Fenwick-Reddaway Mfg. Co., Newark.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo.

Belting, Leather

Allen, W. D., Mfg. Co., Chicago, Ill.
Alexander Brothers, Inc., Philadelphia.

FLAT and ROUND LEATHER BELTING

Raniville Flat and Round Leather Belting has behind it the prestige that comes with 60 years of leadership. Raniville "Star Brand" is made from the center cuts of carefully selected hides. It has no superior.

LABORATORY PRODUCTS
To complete your belting needs Raniville manufacturers:—A complete line of Mechanical Leather Specialties, Belt Treatments and Belting Cements.

F. RANIVILLE CO.
GRAND RAPIDS · CHICAGO · NEW YORK

Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Johnson Belting Co., New York, N. Y.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

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made from

TRIPLE STRETCHED LEATHER

All our Belting is made exclusively from TRIPLE STRETCHED LEATHER. This is a GUARANTEE of minimum stretch in the finished product and an assurance to the user that the Belting, properly installed, will give longer service, with greatly reduced maintenance expense.

All Belting manufactured by us is made with WATERPROOF CEMENT.

Our product is marketed practically entirely through Mill Supply Distributors. Our sales policy is so planned as to continually place the Distributor in a position to compete with direct selling manufacturers as well as other Mill Supply Distributors—AT A GOOD MARGIN OF PROFIT.

May we submit our proposition?

JOHNSON BELTING COMPANY
34-44 HUBERT ST. NEW YORK

Manufacturers of Flat and Round Leather Belting—and Leather Specialties.

RESEARCH Leather Belting

All of the brands shown and described below are made by the "tension cementing process" developed and patented by Graton & Knight Company.

CENTER STOCK RESEARCH BELTING

GRATON & KNIGHT 5 — Graton & Knight 5 is made in all widths and plies. Singles, 13/64"; Doubles, 23/64" thick.

GRATON & KNIGHT 6 — Graton & Knight 6 is made in all widths and plies. Singles, 11/64"; Doubles, 20/64" thick.

GRATON & KNIGHT 7 — Graton & Knight 7 is made in all widths and plies. Singles, 9/64"; Doubles, 18/64" thick.

Special Tannage "Spartan" Belting

GRATON & KNIGHT 16 SPARTAN — Graton & Knight 16 Spartan withstands to an unusual degree the harmful effects of steam, oil, heat, acid fumes, and other destructive agencies.

It is made of center stock only in all width and plies. All Spartan Belts over 4 inches wide should be Double ply. Singles over 4 inches wide are not recommended. Spartan 16 is made in three thicknesses, the thickness depending on drive requirements.

Spartan and Oak Belting

GRATON & KNIGHT 18 — This Belting is made in Doubles only, one ply Oak and the other Spartan. It is made in three thicknesses, the thickness depending on drive requirements.

Planer Belting

made especially for Planer service

GRATON & KNIGHT 19 — Graton & Knight 19 Planer Belting is made of Research Oak Tanned Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

GRATON & KNIGHT 17 — Graton & Knight 17 Planer Belting is made of Research Spartan Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

GRATON & KNIGHT 22 — Graton & Knight 22 Planer Belting is made of Research Chrome Tanned Leather. It is made in Doubles only, not over 8 inches wide. Thickness, 18/64".

Special Single and Double Belting

GRATON & KNIGHT 4 — A Research Leather Belt of Extra Heavy selection made for special Heavy Duty service. Made in Singles only and not over 4 inches wide. Thickness, 15/64".

GRATON & KNIGHT 8 — A Research Leather Belt made in Doubles only, Extra Light selection, for special Light Duty on small pulleys at high speeds. Not over 6 inches wide. Thickness, 16/64".

SIDE STOCK RESEARCH BELTING

GRATON & KNIGHT 11 — Graton & Knight 11 is made not over 6 inches wide in Single thickness and 12 inches wide in Double thickness. Singles, 13/64"; Doubles, 22/64" thick.

GRATON & KNIGHT 12 — Graton & Knight 12 is made not over 6 inches wide in Single thickness and 12 inches wide in Double thickness. Singles, 11/64"; Doubles, 19/64" thick.

Other products: Research Belt Dressing, Lace Leathers, Round Belting and Belting Cements.

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Worcester, Mass.
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Manufacturers
31 Spruce St. New York, N. Y.
NEWARK SYRACUSE

Webb Belting Co., Kansas City, Mo.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wing, J. T., & Co., Detroit, Mich.

Belting, Leather, Cone

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N. Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Eagle Counter & Leather Co., The Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
McLanathan, F. W., & Son, Lawrence, Mass.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather Link

Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.

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Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.

Belting, Leather, Rawhide

Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Brooklyn Rawhide Mfg. Co., Brooklyn, N. Y.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Keystone Belting Co., Philadelphia, Pa.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Western Rawhide & Belting Co., Milwaukee, Wis.

Belting, Leather, Round and Twist

Allen, W. D., Mfg. Co., Chicago, Ill.
Alexander Brothers, Inc., Philadelphia.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich. (Round only)
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Illinois Mechanical Leather Co., Chicago.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
McLanathan, F. W., & Son, Lawrence, Mass.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Steam Proof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
Milwaukee Leather Belting Co., Milwaukee.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Waterproof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.

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Round Twisted Rawhide Belting. Tough, resilient, flexible, mechanically tanned rawhide well stretched and twisted to accurate diameters.

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McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Rope

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

Belting, Rubber

Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Capen Belting & Rubber Co., St. Louis.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Belting Co., Chicago, Ill.
Fabreeka Products Co., Inc., Boston, Mass.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manufacturers Equipment Co., The, Dayton, Ohio.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mechanical Rubber Co., Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Ton-Tex Corp., Grand Rapids, Mich.
Webb, J. A., Belting Co., Inc., Buffalo.
Whitehead Bros. Rubber Co., Trenton, N. J.

Belting, Sanding and Polishing

Barton, H. H., & Son, Co., Troy, N. Y.
Behr-Manning Corp., Troy, N. Y.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Couse & Bolten, Inc., Newark, N. J.
Curry, J. W., Co., Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Franklin Cotton Mill Co., The, Cincinnati.
Gilmer, L. H., Co., Philadelphia, Pa.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Walls Sales Corp., New York, N. Y.

Belting, Used and Reconstructed

Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Detroit Oak Belting Co., Detroit, Mich.
Duryea Products Co., New York, N. Y.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Keystone Belting Co., Philadelphia, Pa.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Belts, Endless, Thresher, Etc.

Allentown Leather Belting Co., Allentown, Pa.
American Belting Companies, The, Baltimore, Md.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J. (Fabric)
Curry, J. W., Co., Cincinnati, O. (Cotton)
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fabreeka Products Co., Inc., Boston, Mass.
Field, R. B., & Co., Worcester, Mass.
Gandy Belting Co., Grand Rapids, Mich.
Gilmer, L. H., Co., Philadelphia, Pa.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Hunter, James, Machine Co., North Adams, Mass.
Johnson Belting Co., New York, N. Y.
McIlroy Belting Works, Hammond, Ind.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Moloney Belting Co., Chicago, Ill.
New York Belting & Packing Co., Passaic, N. J.
O'Meara Belting Co., Omaha, Neb.
Philadelphia Belting Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Victor Balata & Textile Belting Co., New York, N. Y. (Including car lighting belts)
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belts, Linemen's

Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Field, R. B., & Co., Worcester, Mass.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Sons, Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

Belts, Safety, Miners'

Brown, Arthur S., Mfg. Co., Tilton, N. H.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Klein, M., & Sons, Chicago, Ill.

One Address

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This is the main or general sales office, or the one otherwise specified by the company

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DAYTON V-BELTS AND DRIVES
ALWAYS AVAILABLE

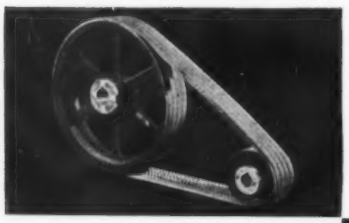
Complete warehouse stocks make the following line of Dayton V-Belts and Drives immediately available for machines of all types in factories, mills, mines, quarries, oil fields, refineries, printing plants, office and apartment buildings; on construction work, railway cars, and ships.

1. Dayton Cog-Belt Drives, including pulleys for all power requirements up to 1,000 h.p.

2. Dayton Cog-Belts with Day-Steel Pulleys for drives up to 15 h.p.—all speed ratios. Pulleys of 1 to 6 grooves; 30% to 50% lower in price.

3. Standardized Fractional Horse Power Drives—V-Belts and Pulleys—for every speed ratio and center distance.

4. Dayton V-Flat Belts.



THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO
World's Largest Manufacturer of V-Belts
Manufacturers also of Dayton Fan Belts, Dayton Red Tube Radiator Hose, and the famous Dayton Thoroughbred Tires and Tubes

COMPACT, DURABLE AND EFFICIENT

Dayton
COG-BELT DRIVES

ROCKWOOD
V-TYPE BELTS

LARGE STOCKS

QUICK DELIVERY

for industrial and household drives

Scientifically constructed for high transmitting efficiency and enduring dependability. You'll profit by selling these quality belts. Carry an assortment for refrigerators and washing machines—list of sizes on request.

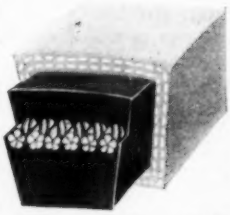
THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Mine Safety Appliances Co., Pittsburgh.
Raniville, F., Co., Grand Rapids, Mich.
Rope Fire Escape Co., Philadelphia, Pa.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

Belts, "V"

Alexander Brothers, Inc., Philadelphia, Pa.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Central Rubber & Supply Co., Indianapolis.
Chicago Belting Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Eagle Belting Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.
Gates Rubber Co., The, Denver, Colo.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Medart Co., The, St. Louis, Mo.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Ohio Valley Pulley Works, The, Maysville, Ky.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rahmann, Geo., & Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Rockwood Mfg. Co., The, Indianapolis, Ind.

BROWNING GRIPBELTS



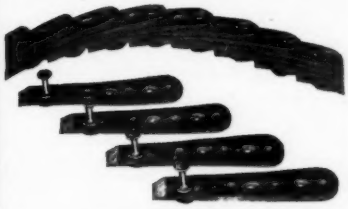
HIGHEST QUALITY

ALL SIZES IN STOCK

WRITE FOR CATALOGUE

Ohio Valley Pulley Works
Div.—General Fibre Products, Inc.
Maysville, Ky.

VEELOS "V" BELTING



The only Rubber Detachable Link "V" Belt on the Market

Made on the overlapping fish scale principle. Rubber impregnated fabric units detachable and interchangeable without need for lacing, splicing, or fasteners. Can be made endless to fill any order from the five stock widths.

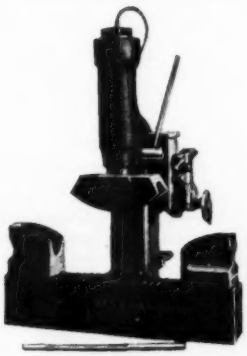
Simple to use; simple to sell. A profitable, necessary line for Distributors to carry. *Write for information.*

Manheim Mfg. & Belting Co.
Manheim, Penna.

New York, N. Y. 350 Broadway — Chicago, Ill. 407 S. Dearborn St.

**See Veelos Balata and Canvas Stitched Belting Advertisement, page 34.*

HYDRAULIC PIPE BENDERS



POWERFUL, rapid acting pipe and conduit benders—

Built in three sizes:—

20 Ton for Pipe sizes to 3"
30 Ton for Pipe sizes to 4"
40 Ton for Pipe sizes to 5"

Light enough to be portable, and rugged enough to stand up under hard service, they are ideal for shop or field use.

The Watson-Stillman Company
100 Aldene Rd. — Roselle, N. J.

Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Belts, Window Washers'

Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Globe Woven Belting Co., Inc., Buffalo, N. Y.
Graton & Knight Co., Worcester, Mass.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Rope Fire Escape Co., Philadelphia, Pa.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.

Bench Legs

(See "Legs, Bench")

Benches, Draw

Oliver, W. W., Mfg. Co., The, Buffalo, N.Y.
Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Molders'

Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Pipe Cutting and Threading

Hollands Mfg. Co., Erie, Pa.
Market Forge Co., Everett, Mass.
Martin, H. P., & Sons, Owensboro, Ky.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Benches, Saw, Portable

Boice, W. B. & J. E., Toledo, Ohio.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Speedway Manufacturing Co., Cicero, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Benches, Work

Angle Steel Stool Co., Plainwell, Mich.
Aurora Equipment Co., Aurora, Ill.
Axelson Mfg. Co., Ltd., Los Angeles, Calif.
Delta Mfg. Co., Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel and wood steel)
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Toles, W. C., Co., Woodstock, Ill.

Benders, Angle

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

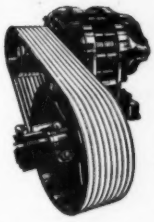
Benders, Bar

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Benders, Conduit and Pipe

American Pipe Tool Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Hollands Mfg. Co., Erie, Pa.

TEXROPE DRIVES



TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no belt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H. P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

TEXROPE V-BELTS These belts, made for Allis-Chalmers by the B.F.Goodrich Rubber Co., are scientifically designed to withstand flexing and are formed in precisely machined moulds. The extreme accuracy of both Texrope Sheaves and V-Belts combine to give a very high degree of efficiency and long life.

DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

STRAITLINE MOTOR BASE With the new Straitline Automatic Ball Bearing Motor Base the finest adjustments are possible and easy to accomplish—all you do is turn a hand-wheel. The indicator dial, on this new motor base, tells you exactly what your tension is at all times and you can make your adjustment while running. This base eliminates all guesswork.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Lidseen, Gustave, Inc., Chicago, Ill.
Martin, H. P., & Sons, Owensboro, Ky.
Noyes, B. B., Co., Greenfield, Mass.
Parker Appliance Co., The, Cleveland, O. (Copper tube benders)
Sampson Tool Co., New York, N. Y.
Silvey Pipe Bender Co., Kansas City, Mo.
Skinner, M. B., Co., South Bend, Ind.
Tallman Manufacturing Co., Shelbyville, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Rail

Aldon Co., The, Chicago, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Excelsior Tool and Machine Co., East St. Louis, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Benders, Tire

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hays Manufacturing Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.

Bending Machines, Pipe

(See "Machines, Bending, Pipe")

Bends and Coils, Pipe

Brunswick-Kroeschell Co., New Brunswick, N. J.
Buffalo Forge Co., Buffalo, N. Y.
Carbondale Machine Corp., Harrison, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Gardiner Metal Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Keystone Boiler & Foundry Co., Landisville, Pa.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Midwest Piping & Supply Co., St. Louis, Mo.
Mitchell, W. K., & Co., Inc., Philadelphia.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Reading Iron Co., Philadelphia, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bends, Return

Acheson Manufacturing Co., Rankin, Pa. (Brass)
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lansdale Nipple Co., Lansdale, Pa.
Malleable Iron Fittings Co., Branford, Conn.
Northwest Lead Co., Seattle, Wash.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bevels

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Bibbs

Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Empire Brass Mfg. Co., The, Cleveland, O.
General Brass Co., Detroit, Mich.
Goodrich, B. F., Co., The, Akron, Ohio. (Hard rubber)
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Conn.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Munn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Binders, Load

Advance Car Mover Co., Inc., Appleton, Wis.
Atkins, E. C., & Co., Indianapolis, Ind.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Newhall Chain Forge & Iron Co., New York.

Binders, Loose Leaf Catalog

Dietzgen, Eugene, Co., Chicago, Ill.
Heinn Co., Milwaukee, Wis.
Master-Craft Corp., Kalamazoo, Mich.
Remington Rand, Inc., Buffalo, N. Y.
Tait, A. A., Plainfield, N. J.

Bin Labels

(See "Labels, Bin")

Bins, Storage, Steel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Beaumont, R. H., Co., Philadelphia, Pa.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Edwards Mfg. Co., The, Cincinnati, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Heller, W. C., & Co., Montpelier, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bits, Auger

Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Bits, Bonding

Alvord-Polk Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Bits, Boring Machine

Crescent Tool Co., Jamestown, N. Y.
Crucible Steel Co. of America, New York.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Countersink

American Swiss File & Tool Co., Elizabeth, N. J.
Butterfield & Co. (Division Union Twist Drill Co.), Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York.
Forest City Bit & Tool Co., Rockford, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Bits, Dowel

Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Expansive

Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Lubriplate Corp., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.

Bits, Gimlet

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Bits, Machine

Delta Mfg. Co., Milwaukee, Wis.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Bits, Mining Machine

American Chain Co., Inc., Bridgeport, Conn.
Crucible Steel Co. of America, New York.
Ingersoll-Rand Co., New York, N. Y.
Leetonia Tool Co., The, Leetonia, Ohio.
McKay Co., The, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Bits, Mortising, Common and Hollow

Crucible Steel Co. of America, New York.
Delta Mfg. Co., Milwaukee, Wis.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Star Bit & Tool Co., Rockford, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Bits, Rock

Crucible Steel Co. of America, New York.
Ingersoll-Rand Co., New York, N. Y.
Timken Roller Bearing Co., The, Canton, O.

JACKBITS

The proper detachable bit for every rock job.

Ingersoll-Rand
11 BROADWAY, NEW YORK CITY

SIMONDS
TOOL HOLDER BITS

High Speed Steel
and
Super-Cobalt
SIMONDS SAW AND STEEL CO. - - Fitchburg, Mass.

Bits, Router

Delta Mfg. Co., Milwaukee, Wis.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Latrobe Tool Co., Latrobe, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Orum, S. R. M., Inc., Philadelphia, Pa.
Stanley Electric Tool Division, Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Bits and Shanks, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Crucible Steel Co. of America, New York.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Hoe, R., & Co., Inc., Bronx, New York.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Bits, Screwdriver

(See "Screwdriver Bits")

Bits, Tool Holder

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Cowles Tool Co., Cleveland, Ohio.
Crucible Steel Co. of America, New York.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
Heller Bros. Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.
Latrobe Tool Co., Latrobe, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Marcy Tool Works, Inc., Putnam, Conn.
O. K. Tool Holder Co., The, Shelton, Conn.
Ryerson, Joseph T., & Son, Chicago, Ill.
Simonds Saw and Steel Co., Fitchburg, Mass.
Vincent Steel Process Co., Detroit, Mich.
Williams, J. H., & Co., New York, N. Y.

ARMSTRONG
Super High-Speed Steel

BITS
BLADES
CUTTERS
Super-steel that permits 25 to 100 more f.p.m. Far superior to High Speed Steels sold by the pound. These bits and blades are carefully heat treated, hardened and tempered—come ready-ground to standard cutting shapes, or ready to grind. They are strictly speaking fine tools in the rough, are the most economical in use. For Carbide-tipped (Armide) Cutters, see "Tools, Carbide" in this book.
Armstrong Bros. Tool Co.
"The Tool Holder People"
332 N. Francisco Ave., CHICAGO
New York Office—199 Lafayette St.
Write for Catalog

Blacksmiths' Tools

(See "Tools, Blacksmiths'" or specific item desired.)

Blades, Saw

(See "Saws")

Blades, Shear

Atkins, E. C., and Co., Indianapolis, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Covel Hanchett Co., Big Rapids, Mich.
Cowles Tool Co., Cleveland, Ohio.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
G. D. S. Shearing & Punching Machine Co., Inc., New York, N. Y.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Niagara Machine & Tool Works, Buffalo.
Ohio Knife Co., The, Cincinnati, Ohio.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.

Blankets, Camp

Boston Woven Hose & Rubber Co., Cambridge, Mass.

Blankets, Mine, Rubber

Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Gross Rubber Co., Sharon, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Mine Safety Appliances Co., Pittsburgh.
New York Belting & Packing Co., Passaic, N. J.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Republic Rubber Co., The, Youngstown, Ohio.

Blankets, Rescue, Asbestos

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Holcomb Safety Garments Co., Chicago.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Blanks, Gear

Ampco Metals, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio (Cast bronze)
Bethlehem Steel Co., Bethlehem, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Columbus Anvil & Forging Co., The, Columbus, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Crucible Steel Co. of America, New York.
Detroit Screw Works, Detroit, Mich.
Detroit Stamping Co., Detroit, Mich.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Federal Screw Works, Detroit, Mich.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Frasse, Peter A., & Co., Inc., New York.
Great Lakes Chemical Works, Detroit.
Hartford Machine Screw Co., Hartford, Conn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hudson-Sharp Machine Co., Green Bay, Wis.
Illinois Gear & Machine Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Massachusetts Machine Shop, Inc., Boston, Mass.
Moloney Belting Co., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Noyes, B. B., Co., Greenfield, Mass.
Ohio Forge & Machine Corp., Cleveland, Ohio.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springville, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Waldron, John, Corp., New Brunswick, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Rawhide & Belting Co., Milwaukee, Wis.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Blanks, Nut and Screw

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Nut Co., Inc., Detroit, Mich. (Nut blanks only)
Detroit Screw Works, Detroit, Mich.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Williams, J. H., & Co., New York, N. Y.

Blasting Machines

(See "Machines, Blasting")

Blasts, Sand

(See "Sand Blast Machines and Equipment")

Blocks, Awning

Ford Chain Block Co., Philadelphia, Pa.
Lignum-Vitae Products Corp., Jersey City, N. J.
Perkins Marine Lamp Corp, Brooklyn.
Sargent & Co., New Haven, Conn.

Blocks, Chain

American Chain Co., Inc., New York, N. Y.
American Hoist & Derrick Co., St. Paul.
Boston & Lockport Block Co., East Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Blocks, Dolly

American Hoist & Derrick Co., St. Paul.
Plomb Tool Co., Los Angeles, Calif.
LaFrancis, A., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

SKF
Puts the Right Bearing in the Right Place
MORE THAN 1200 TYPES AND SIZES

SKF makes practically all types of anti-friction bearings. When SKF recommends a particular type of bearing, therefore, you may depend upon it; its recommendations are unbiased!

Here's two of more than 12 types of SKF Pillow Blocks, and each type has a world-wide reputation for quality and performance. SKF will be glad to help you out, if you can't supply the *right* pillow block for the right place.

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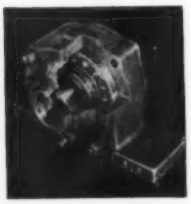
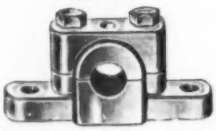
Front St. and Erie Ave. Philadelphia, Pa.

Split Pillow Block


Universal Pillow Block

CHICAGO
PILLOW BLOCKS
CAST FROM THE BEST GRADE OF BABBITT



We manufacture and carry in stock a complete line of pillow blocks with bores from ¼" to 1¼".
Catalogue furnished on request.
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2510 W. Monroe St. CHICAGO, ILL.

Blocks, Drill

Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.

Blocks, Friction, Asbestos

American Hoist & Derrick Co., St. Paul.
Dodge Manufacturing Corp., Mishawaka, Ind.
Johns-Manville, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Ruberoid Co., The, New York, N. Y.

Blocks, Pillow

Ahlberg Bearing Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa. (Including pedestal type)
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Shafer Bearing Corp., Chicago, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

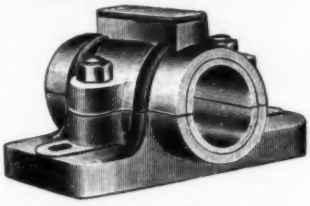
Blocks, Snatch

American Hoist & Derrick Co., St. Paul.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston.
Edwards, H. D., & Co., Detroit. (Steel)
Hartz, H. V., Co., The, Cleveland, Ohio.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Blocks, Swage

American Foundry & Mfg. Co., St. Louis.
Noyes, B. B., Co., Greenfield, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Pillowblocks
Ring- and wick-oiling; universal-adjustable and rigid; reamed babbitted bearings; all standard sizes.



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ROYERSFORD, PA.

HARTZ STEEL TACKLE AND SNATCH BLOCKS
STRONGEST BLOCK ON THE MARKET
H. D. EDWARDS & CO.
DETROIT, MICH.

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American Steel & Wire Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Edwards, H. D., & Co., Detroit, Mich. (Steel tackle blocks)
Hartz, H. V., Co., The, Cleveland, Ohio.
Klein, M., & Son, Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Michigan Engine Valve Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Roebling's, John A., Sons Co., Trenton, N. J.
Sargent & Co., New Haven, Conn.
Starline, Inc., Harvard, Ill.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Hyatt Spherical Type

Light Pattern Common

PILLOW BLOCKS

We only illustrate a few of the Standard Type of Pillow Blocks we stock. Our line includes a very wide range of Rigid Ring Oiling, Collar and Wick Oiling; Plain in Light and Heavy Duty Styles, Adjustable and Spherical Types. Ask for our Catalog 831 showing this Line of Transmission that sells.

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Sprout, Waldron & Co.
Muncy, Pa.

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A COMPLETE LINE FOR USE WITH WIRE ROPE AND MANILA ROPE

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Established 1871

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American Hoist & Derrick Co., St. Paul.
Brown & Sharpe Mfg. Co., Providence, R. I.
Standard Shop Equipment Co., Philadelphia, Pa.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Blow Pipes

(See Also "Pipes, Brazing and Blow")

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boekel, Wm., & Co., Philadelphia, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Hammel, Riglander & Co., Inc., New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., Richmond, Ind.
Victor Welding Equipment Co. (Division of Victor Equipment Co.), San Francisco.

Blowers, Boiler Flue and Tube Cleaning

Allen & Billmyre Co., Inc., New York, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Electric Blower Co., Boston, Mass.
Hennebohle, Frank, Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Richmond Hill, New York, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Self Cleaning Strainer Co., Chicago, Ill.

Blowers, Draft, Steam Jet or Turbine

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Hennebohle, Frank, Chicago, Ill.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.

Blowers, Electric, Portable

Allen & Billmyre Co., Inc., New York.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
General Electric Co., Schenectady, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.

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ELECTRIC CLEANERS

THERE'S a big market for these efficient Portable Electric Cleaners — they sell because IDEAL "3 in 1" units answer for all dust problems — they BLOW, VACUUM, SPRAY. To help you to sell your customers, all models are shipped on 5 Days' Free Trial. Get in on this—write for literature, prices and discounts.

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EVERY PLANT YOU CALL ON HAS USE FOR THIS TOOL • •

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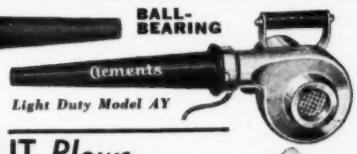
CADILLAC PORTABLE ELECTRIC
BLOWING AND SUCTION EQUIPMENT

General Duty Model F



Light Duty Model AY

Ask for FREE Trial

Your customers will be interested in this versatile portable Electric Blower—Suction Cleaner — Sprayer — which is being used to cut maintenance costs and perform innumerable tasks in literally thousands of industrial plants.

IT Blows . . . IT Sprays

Standard and special attachments are available with which to instantly convert this Blower to a powerful suction cleaner, paint sprayer or practically every other shop or plant blowing or cleaning use.

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Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Blowers, Electric, Portable, Hand

Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Blowers, Forge

Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Champion Blower & Forge Co., Lancaster, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.

Blowers, Furnace and Cupola

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Autovent Fan & Blower Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clements Mfg. Co., Chicago, Ill.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.

"Marvel" Ball Bearing Portable Electric Blower

Model No. 2
$35.00
Reduced from $45.00

Sell Your Customers one on 10 DAYS FREE TRIAL

Keep their ELECTRIC MOTORS and WOOD-WORKING and OTHER MACHINERY free from dust, dirt, chips and sawdust, greatly reducing their motor troubles, wear and tear, and also the ever-present FIRE HAZARD.

Order one ON 10 DAYS TRIAL, and test it in their own plant. Give VOLTAGE of their Lighting Circuit.

We also make a larger size, Model No. 3, for $50.00, reduced from $60.00.

Vacuum Cleaner Attachments, $10.00 additional. In daily use in more than 8,000 industrial plants.

Also Portable Tank Vacuum Cleaners.

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Electric Blower Co., Boston, Mass.
Emerson Electric Mfg. Co., St. Louis, Mo.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J. (Furnace only)
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
National Fan & Blower Corp., Chicago, Ill.
Power-Turbo-Blower Co., New York, N. Y.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.

Blowers, Gas and Oil Combustion

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Sturtevant, B. F., Co., Boston, Mass.

Blowers, Hand

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clements Mfg. Co., Chicago, Ill.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.

Blowers, Heating

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Modine Mfg. Co., Racine, Wis.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.

Blowers, Positive

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Blower Corp., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diehl Mfg. Co., Elizabethport, N. J.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

Blowers, Pressure

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Asch & Company, Inc., New York, N. Y. (For car drying)
Autovent Fan & Blower Co., Chicago, Ill.
Baker-Hansen Mfg. Co., Alameda, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
National Fan & Blower Corp., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

Blowers—Saw Dust, Shavings, Etc.

(See "Collectors, Exhausters [or Blower Systems], for Shavings and Dust")

Blowers, Soot

Bate Boiler Efficiency Co., Conshohocken, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Hennebohle, Frank, Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Richmond Hill, New York, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.

Blowers, Ventilating

American Blower Corp., Detroit, Mich.
American Propeller Co., The, South Bend, Ind.
Autovent Fan & Blower Co., Chicago, Ill.
Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., Cleveland.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Hartzell Propeller Fan Co., Piqua, Ohio.
Ilg Electric Ventilating Co., Chicago, Ill.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
National Fan & Blower Corp., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.
Victor Electric Products, Inc., Cincinnati, Ohio.

Board, Stencil, Oiled

Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

Boards, Asbestos

(See "Millboard, Asbestos")

Boards, Fibre

Armstrong Cork Products Co., Lancaster, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Union Fibre Sales Co., Winona, Minn.

Boards, Glass Cutting

Lufkin Rule Co., The, Saginaw, Mich.

Boiler Feeders, Water

(See "Feeders, Boiler, Water")

Boiler Mountings

(See "Plugs, Fusible," "Columns, Water," "Cocks, Gauge," "Valves, Blowoff," "Blowers, Soot," etc.)

Boiler Nozzles

(See "Nozzles, Boiler")

Boiler Tubes

(See "Tubes, Boiler")

Boilers, Range

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Morley Co., La Porte, Ind.
Crane Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Wheeling Steel Corp., Wheeling, W. Va.

Bolt and Cap Screw Threading Machines

(See "Machines, Threading, Bolt and Cap Screw")

Bolt, Nut and Rivet Machinery

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Pacers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Bolts, Barrel

Boss Bolt & Nut Co., Chicago, Ill.
California Screw Co., San Francisco, Calif.
Elco Tool & Screw Corp., Rockford, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

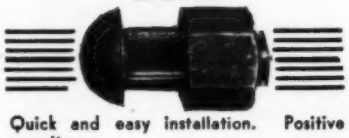
Bolts, Blank

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Boiler Patch

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.

Dardelet Rivet Bolts



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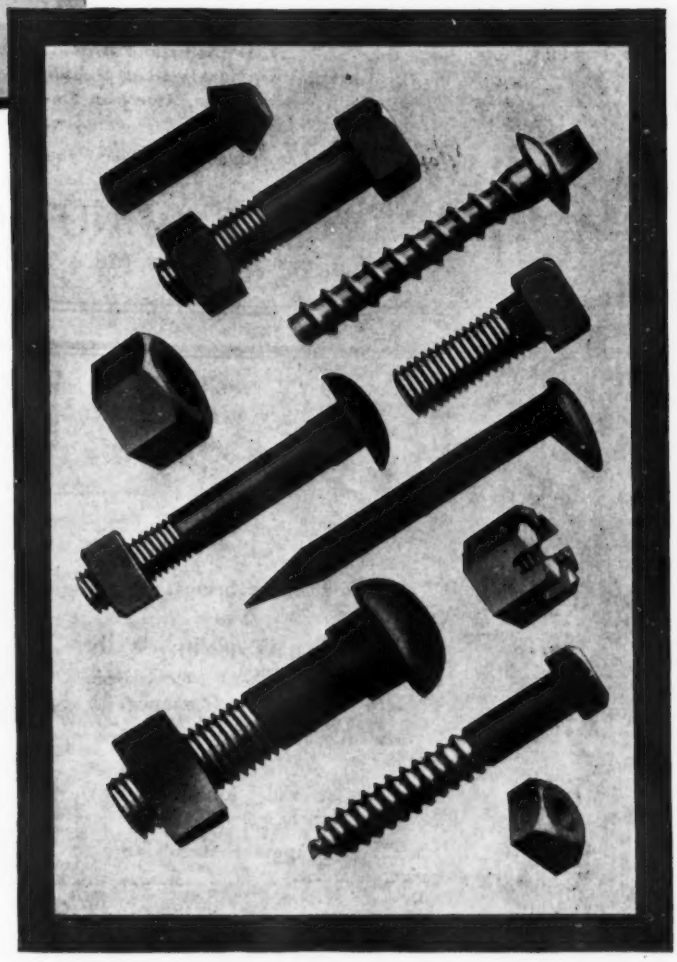

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Lag Bolts — Tap Bolts
Hanger Bolts — Elevator Bolts
Plow Bolts — Track Bolts
Bridge Bolts — Hook Bolts
Eye Bolts — U-Bolts
Railroad Track Spikes
Railroad Screw Spikes
Pressure Screws
Alloy-Steel Bolts and Studs
Stainless-Steel Bolts and Studs
Clevises — Turnbuckles
Washers — Wedges — Upset Rods
Round and Flat Tie Rods
Silo Rods — Rivets
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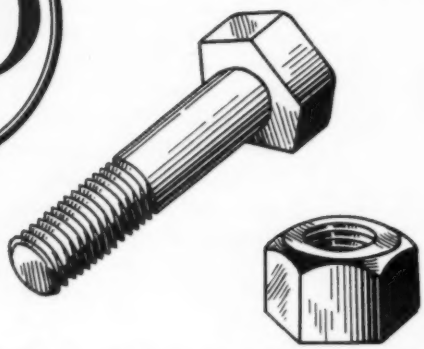

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Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Boiler Stay

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Flannery Bolt Co., Pittsburgh, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts—Brass, Bronze and Copper

Atlas Bolt & Screw Co., The, Cleveland, O.
Brooks, M. S., & Sons, Inc., Chester, Conn.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Messmer Brass Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Stanley Works, The, New Britain, Conn.
U. S. Indestructible Gasket Co., Brooklyn.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Bridge and Roof

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Carriage

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.

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Everitt Co., The, Boston, Mass.
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Lamson & Sessions Co., The, Cleveland, O.
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Milton Manufacturing Co., The, Milton, Pa.
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Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland, O.

Bolts, Chain

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Detroit Screw Works, Detroit, Mich.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Products, Inc., Newcastle, Ind.

Bolts, Coach and Lag

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bolts, Collar

Atlas Bolt & Screw Co., The, Cleveland.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Rochester Machine Screw Co., Rochester.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Connecting Rod

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Monarch Cap Screw & Mfg. Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

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Atlas Bolt & Screw Co., The, Cleveland.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Columbus Bolt Works Co., The, Columbus, Ohio.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Malleable Iron Works, Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Lead Co., New York, N. Y.
National Screw & Mfg. Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
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Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Countersunk

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
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Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Coupling

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Huron Industries, Inc., Alpena, Mich.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Drift

Atlas Bolt & Screw Co., The, Cleveland, O.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Columbus Bolt Works Co., The, Columbus, Ohio.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Elevator Bucket

Atlas Bolt & Screw Co., The, Cleveland, O.
American Screw Co., Providence, R. I.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Jeffrey Manufacturing Co., Columbus, O.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Link-Belt Co., Chicago, Ill.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bolts, Expansion

Arro Expansion Bolt Co., Marion, Ohio.
Arguto Oilless Bearing Co., Philadelphia.
Boss Bolt & Nut Co., Chicago, Ill.
Brohard Co., The, Philadelphia, Pa.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co.. Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Kempton Manufacturing Corp., The, New York, N. Y.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Modern Mfg. Co., The, Cleveland, Ohio.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co., New York.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Rawlplug Co., Inc., The, New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Ryerson, Joseph T., & Son, Inc., Chicago.
Star Expansion Bolt Co., New York, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

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Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Chain Products Co., The, Cleveland, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Laughlin, Thomas Co., Portland, Maine.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Newhall Chain Forge & Iron Co., New York.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.
Williams, J. H., & Co., New York, N. Y.

Bolts, Flexible

California Screw Co., San Francisco, Cal.
Flannery Bolt Co., Pittsburgh, Pa.
Maryland Bolt & Nut Co., The, Baltimore.

Bolts, Foot

Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Cal.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.

Bolts, Galvanized

Acme Machine Products Co.. Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Federal Screw Works, Detroit, Mich.
Gaskell, Wm., & Son, Inc., Brooklyn, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Champion Manufacturing Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.

Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Modern Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co. Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Wood's. T. B., Sons Co., Chambersburg, Pa.

Bolts, Lag

(See "Bolts, Coach and Lag")

Bolts, Machine

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co.,The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The. Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio. (Large size and special)
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
New England Screw Co., Boston, Mass.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rochester Machine Screw Co., Rochester.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland.

Bolts, Monel Metal

Atlas Bolt & Screw Co., The, Cleveland, Ohio. (Also monel screws)
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
International Nickel Co., Inc., The, New York, N. Y.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester. N. Y.

Bolts, Planer Head

Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Covel-Hanchett Co., Big Rapids, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Bolt & Steel Co., Rockford, Ill.
Sheldon Machine Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Plow

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Self-Tapping—Patch, Repair

Parker-Kalon Corp., New York, N. Y.

Bolts, Shackle

Acme Machine Products Co., Muncie, Ind.
Aluminum Industries, Inc., Cincinnati, O.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Federal Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
Newhall Chain Forge & Iron Co., New York.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts—Sink, Stove and Tire

American Screw Co., Providence, R. I.
Arguto Oilless Bearing Co., Philadelphia.
Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Continental Screw Co., New Bedford, Mass.
Eagle Lock Co., Terryville, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Federal Screw Works, Detroit, Mich.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Spring

Aluminum Industries, Inc., Cincinnati, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Stay

(See "Stay Bolts")

Bolts, Step

Atlas Bolt & Screw Co., The, Cleveland, O.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Federal Screw Works, Detroit, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Stripper

(See "Screws, Shoulder, Socket Head")

Bolts, Stud

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.

Gaskell, Wm., & Son, Inc., Brooklyn, N. Y.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Tap

Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Radiator Corp., Johnstown, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Ottemiller, Wm. H., Co., Inc., York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Bolts, Toggle

Arguto Oilless Bearing Co., Philadelphia.
Arro Expansion Bolt Co., Marion, Ohio.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Modern Mfg. Co., The, Cleveland, Ohio.
Newhall Chain Forge & Iron Co., New York.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
U. S. Expansion Bolt Co., New York, N. Y.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Track

Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Marion Machine Foundry & Supply Co., Marion, Ind.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Boosters, Gas and Air Pressure

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Coppus Engineering Corp., Worcester, Mass.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Torchweld Equipment Co., Chicago, Ill.

Boots, Elevator

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Boots, Rubber

Goodrich, B. F., Co., The, Akron, Ohio.
Ohio Rubber Co., The, Cleveland, Ohio.
Rockford Drilling Machine Co., Rockford, Ill.
Rubberhide Co., Trenton, N. J.

Boring Machines

(See "Machines, Boring")

Boring Tools

(See "Tools, Boring")

Box Strapping

(See "Strapping, Box")

Boxes, Eccentric and Thrust

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Hanger, Replace

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes and Barrels, Hard Fibre

Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Boxes, Journal

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car and Foundry Co., New York.
Arguto Oilless Bearing Co., Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Great Lakes Chemical Works, Detroit.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Messmer Brass Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich. (Wood)
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Mitre

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Diamond Iron Works, Inc., Minneapolis.
Economy Manufacturing Co., Philadelphia.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Boxes, Mortar, Steel

Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Leach Co., Oshkosh, Wis.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Red Star Products Corp., Cleveland, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Oily Waste

(See "Cans or Boxes, Oily Waste")

Boxes, Shop or Tote

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Blackhawk Mfg. Co., Milwaukee, Wis.
Continental-Diamond Fibre Co., Newark, Del.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Geuder, Paeschke & Frey Co., Milwaukee.
Kennedy Manufacturing Co., Van Wert, O.
Lewis, G. B., Co., Watertown, Wis.
Littleford Bros., Cincinnati, Ohio.
Luptons, David, Sons Co., Philadelphia, Pa.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Nutting Truck Co., Faribault, Minn.
Plomb Tool Co., Los Angeles, Calif.
Pollard Bros. Mfg. Co., Chicago, Ill. (Stacking)
Rochester Can Co., Rochester, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Sprue

American Foundry & Mfg. Co., St. Louis.
Sterling Wheelbarrow Co., Milwaukee, Wis.

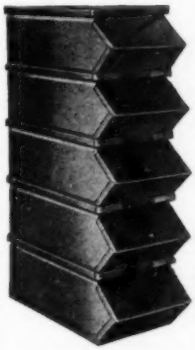
Boxes, Street Washer

Clow, James B., & Sons Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.

Boxes, Stuffing

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Fisher Governor Co., The, Marshalltown, Iowa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
List, E. J., Mfg. Co., Havana, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Perkins Marine Lamp Corp., Brooklyn.

The ASE Line Has "Everything" for Sales of Steel Equipment



A-S-E Stack Units—just one item from the complete A-S-E equipment line for industry.

Here is a line of steel equipment that is a natural "steady business" builder. There is a constant market for these products.

Virtually every industry is a prospect for one or more A-S-E products, including

- Bench Drawers
- Tool Stands
- Tool Boxes
- Tool Holders
- Taper Pans
- Stacking Boxes
- Stack Units

They are built to needs dictated by long experience.

Take A-S-E Stack Units for example. They speed up handling of large and small parts. Inventory can be taken in less time. Of heavy steel, they won't bulge. Their design permits them to be stacked ceiling high, and they won't slip from vibration. A-S-E Stack Units eliminate shelving.

Tool holder plain or furnished with drawers and "fold back" top which can be locked.

Send today for details on this and other members of the A-S-E steel equipment line. They are money-makers.

ALL-STEEL-EQUIP CO.,
Incorporated
607 John St., Aurora, Ill.

Boxes, Take-up

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Tool, Engineers' Kit

All-Steel-Equip Co., Inc., Aurora, Ill.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Repubic Steel Corporation), Canton. O.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Gerstner, H., & Sons, Dayton, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Kennedy Manufacturing Co., Van Wert, O.
Lyon Metal Products, Inc., Aurora, Ill.
Outing Manufacturing Co., Inc., Elkhart, Ind.
Plomb Tool Co., Los Angeles, Calif.
Pollard Bros. Mfg. Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Boxes, Tool, Fireproof

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Detroit Metal Spinning Co., Inc., Detroit. Mich.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Nye Tool & Machine Works, The, Chicago.
Outing Manufacturing Co., Inc., Elkhart, Ind.
Stevens, Walden, Inc., Worcester, Mass.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Valve

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
S. E. T. Valve and Hydrant Co., New York.
Vogt Brothers Mfg. Co., Louisville, Ky.

Braces, Bit

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Phiadelphia, Pa.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Stanley Rule & Level Plant, New Britain, Conn.

Braces, Bit, Angular and Corner

Billings & Spencer Co., The, Hartford, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Phiadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Braces, Rail

Bethlehem Steel Co., Bethlehem, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.

Braces, Trench and Timber

Channon, J. H., Corp., Chicago, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Templeton, Kenly & Co., Chicago.

Brackets, Fire Axe

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Perkins Marine Lamp Corp., Brooklyn.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co.. The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Brackets, Fire Extinguisher Pump and Fire Bucket

Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Brackets, I-Beam

(See "Clamps and Brackets, Beam or Girder")

Brackets and Supports, Pipe

Brunswick-Kroeschell Co., New Brunswick. N. J.
Clow, James B., & Sons, Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Modern Mfg. Co., The, Cleveland, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio. (Supports)
Walworth Co., New York, N. Y.

Brackets, Scaffolding

Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Brackets, Shelf

Atlas-Ansonia Co., New Haven, Conn.
Heller, W. C., & Co., Montpelier, Ohio.
Market Forge Co., Everett, Mass.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.

Brackets, Wall, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

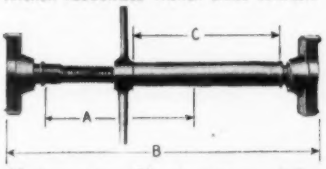
Brads, Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.

Brakes, Bending, Steel

Farrel-Birmingham Co., Inc., Ansonia, Conn.

"ANCHOR" ADJUSTABLE TRENCH BRACE COMPLETE



"Anchor" Adjustable Steel Trench Braces

Strongest and stiffest brace made. Ball and socket butt ends. Only brace using special steel tubing nearly twice as strong as ordinary pipe. Timber braces also. Fittings furnished. All sizes.

EDELBLUTE MANUFACTURING CO.
Reynoldsville, Penna.

Illinois Scully Steel Warehouse Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Press

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Miley, L. J., Co., Inc., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Truck, Hand

Advance Car Mover Co., Inc., Appleton, Wis.
Miley, L. J., Co., Inc., Chicago, Ill.
Nutting Truck Co., Faribault, Minn.
Safety Truck Brake Co., Inc., Appleton, Wis.

Brands, Burning

Bernz, Otto, Co., Inc., Rochester, N. Y. (Gas and kerosene)
Burning Brand Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Soldering Iron Co., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle Park, N. J.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

Brass Rods, Bars and Sheets

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metal Corporation, Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Great Lakes Chemical Works, Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich. (Rods and bars)
National Copper & Smelting Co., Cleveland, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Brattice Cloth

(See "Cloth, Brattice")

Brazing Compounds

(See "Compounds and Fluxes, Brazing")

Brazing Machines

(See "Machines, Brazing, Kerosene and Gasoline")

Brazing Tools

(See "Tools, Brazing")

Breakers, Pavement and Rock

Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland, Ohio. (Pavement only)
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Bricklayers' Sets

(See "Sets, Bricklayers' ")

Bricks and Sticks, Abrasive

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Emery & Stone Co., New York.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Vitrified Wheel Co., Westfield, Mass.
Waltham Grinding Wheel Co., Waltham, Mass.

Bricks, Rubbing

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Norton Co., Worcester, Mass.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Broaches

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Illinois Tool Works, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Broaching Machines

(See "Machines, Broaching")

Bronze Bars, Cored and Solid

(See "Bars, Bronze, Cored and Solid")

Bronze, Castings or Ingots, Aluminum, Manganese and Phosphor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Aluminum Industries, Inc., Cincinnati, O.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bearium Metals Corporation, Rochester, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bristol Brass Corp., The, Bristol, Conn. (Phosphor only)
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metal Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Federated Metals Corp., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Fredericksen Co., Saginaw, Mich.
Great Lakes Chemical Works, Detroit, Mich.
Imperial Brass Mfg. Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.

Bronze Rods, Bars and Sheets, Rolled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metal Corp., Detroit, Mich.
Great Lakes Chemical Works, Detroit, Mich.
Linde Air Products, The, New York, N. Y.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.

Brooms and Brushes, Factory or Warehouse

Deshler Broom Factory, The, Deshler, Neb.
Gerts, Lumbard & Co., Chicago, Ill.
Hamburg Broom Works, Hamburg, Pa.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.

PUSH BROOMS

● The surest way to meet specific requirements for Push Brooms is to refer to the Osborn Catalog which illustrates and describes what you want to know about Osborn Push Brooms.

Rattan Fibre
Bamboo Fibre
African Bass Fibre
Black Bass Fibre
Palmyra Fibre Casing with Steel Wire Center
Bassine Fibre
Flat Steel Wire
Round Steel Wire

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

OSBORN

NEW!

A REAL IMPROVEMENT in STREET and GUTTER BROOMS

No 97 HI-WAY

Pat. Pending.

Rear tufts (fine fibre) 1 inch longer, and flared ends spread wide. Front tufts of coarse fibre. Steel bumpers on each end. Sweeps dust and heavy particles in same operation. Can be used with one hand, saving back action.

Distributors—This item will really sell for you. Let us have your inquiries.

THE JOSEPH LAY CO., Inc.
Since 1876 PORTLAND, IND.

Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Southwestern Broom Mfg. Co., The, Evansville, Ind.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Fibre, Upright

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Mfg. Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brooms, Hide

Deshler Broom Factory, The, Deshler, Neb.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph Co., The, Portland, Ind.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brooms, Push, Fibre or Wire

Gerts, Lumbard & Co., Chicago, Ill.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms or Brushes, Track or Switch

Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland, Ohio.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Sullivan Brush Co., Terre Haute, Ind.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Whisk

Deshler Broom Factory, The, Deshler, Neb.
Hamburg Broom Works, Hamburg, Pa.

Make your selection from
CAPITAL
(GUARANTEED)
Brushes and Brooms

Metal Case

For more than forty-five years Capital guaranteed brushes and brooms have been known for high quality and dependability. The types outlined below have been designed to meet your customers' service requirements.

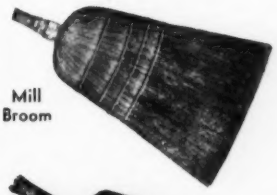
GUARANTEE

No one is ever dissatisfied with Capital performance. However—if for any reason whatever, a Capital purchase should be returned within 30 days, we shall gladly replace, or refund the purchase price, paying freight both ways.

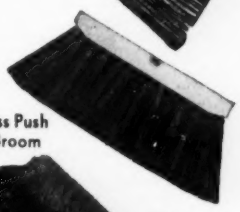
WE MAKE:

- "RED CAP" METAL CASE BROOMS—Machine nailed and clinched under high compression, further reinforced with metal band and two seams of genuine Italian flax twine; made of corn, corn and bamboo mixed, corn and rattan mixed; also bass fibre.
- MILL BROOMS—Popular quality brooms for Mill or Warehouses; strong, well built; made of all corn or corn and bamboo or rattan mixed—any size.
- "LOONTEE" GENERAL PURPOSE MILL BROOM—Where a closed top broom is desired the Loontee is the longest wearing mill broom obtainable—made of an imported fibre not affected by water, chemicals, or like substances. Not necessary to dip in water to keep fibre from curling as it always remains straight.
- PUSH BROOMS—Designed for maximum service; solid hardwood blocks, neatly finished with two tapered handle holes; each tuft guaranteed to hold for life of broom. Our push brooms are made of very best imported materials—bass, bamboo or rattan—and are well filled.
- FLOOR BRUSHES—Complete line for garages, factories, janitors; made of bristle, horsehair, tampico, bassine, palmyra or palmetto fibre. Bristle brushes set in cement; all others wire stapled. Polished blocks with five foot handles to match.
- BENCH DUSTERS—Made in one size; plain finished block 14-in. overall, 8-in. brush; best tampico fibre. Very inexpensive but most durable. Designed for general factory or machine shop use.

Catalog Sheet No. 32 listing principal items, furnished on request.


Mill Broom

Loontee


Bass Push Broom

Floor Brush

Bench Dusters

INDIANAPOLIS
Brush & Broom Mfg. Co.

ESTABLISHED 1890

126 Brush Street Indianapolis, Ind.

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Southwestern Broom Mfg. Co., The, Evansville, Ind.

Brooms, Wire

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Acid or Lime, Masons'

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Linzer, David, & Sons, New York, N. Y.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes and Belting, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Brushes, Bench and Counter

Deshler Broom Factory, The, Deshler, Neb.
Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Buffing

Elder & Jenks, Philadelphia, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Key Co., E. St. Louis, Ill.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brushes, Calcimine

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Carbon Removing

Black & Decker Mfg. Co., The, Towson, Md.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Casting

(See "Brushes, Foundry")

Brushes, Closet Bowl

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Brushes, Deck Scrubbing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Factory

(See "Brooms and Brushes, Factory or Warehouse")

Brushes and Cards, File Cleaning

Cincinnati Tool Co., Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Floor

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Floor Polishing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Flue, Boiler and Furnace

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.

FLOOR SWEEPING BRUSHES

● The problems of matching the correct kind of floor brush or broom for every sweeping requirement are simplified when you refer to the Osborn Catalog. Sweeping requirements are classified and the right brushes are recommended for each kind of sweeping.

FLOOR SWEEPING BRUSHES
For FINE sweeping
For MEDIUM sweeping
For COARSE sweeping

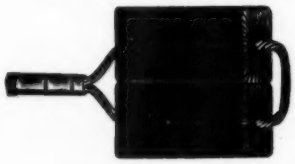
UPRIGHT BASS BROOMS
For FINE sweeping
For MEDIUM sweeping
For COARSE sweeping

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

OSBORN

BOILER



• FLUE •

BRUSHES

Whatever the cleaning job—boiler, flue, radiator—you'll find a Schaefer heavy duty, hard wearing brush just right for it. 30 years of specialization in serving industrial requirements.

SCHAEFER
BRUSH MFG. CO.
1011 S. 2nd St., Milwaukee

TRADE MILWAUKEE MARK

WIRE WHEEL AND END BRUSHES

For Cleaning, Buffing, Polishing, Grinding, etc.

"MONO-BILT"
Interchangeable Centers

"Mono-Bilt" Brush

"Mono-Bilt" Center

"Mono-Bilt" Brushes are made of specially drawn, thoroly crimped wire assembled under heavy pressure, and intermingled into a brush of exceptional strength, durability and effectiveness, which gives splendid service when subjected to severe usage.

"Mono-Bilt" Brushes in 6, 8, 10 and 12-inch sizes are made with a standard 2-inch opening. The 4-inch size with 1-inch opening.

Specially designed **"Mono-Bilt"** Stamped Steel Centers interchangeable in 6, 8, 10 and 12-inch brushes, are made with arbor holes ranging from ½ to 1½ inches.

"Mono-Bilt" Brushes enable the distributor to supply from stock, a brush that will fit practically any standard arbor.

Specifications

Diam. of brush	Thickness	Diam. of face plates	W. & M. gauge wire	Weight each	List each
12 in.	2 in.	5 in.	33	8 lbs.	$8.50
10 in.	2 in.	5 in.	33	7 lbs.	7.00
8 in.	1⅜ in.	4 in.	33	3½ lbs.	5.00
6 in.	1⅜ in.	4 in.	33	2½ lbs.	3.75
4 in.	¾ in.	2¼ in.	33	¾ lb.	2.25

List price includes one pair of "Mono-Bilt" Centers.

Extra pairs of Centers	List per pair
For 6, 8, 10 and 12-inch Brushes	$0.25
For 4-inch Brushes	.18

"Mono-Bilt" Interchangeable Centers for 6-in and larger Brushes, are regularly made with ½, ⅝, ¾, ⅞, 1, 1¼ and 1½-inch arbor holes.

"Mono-Bilt" Interchangeable Centers for 4-inch Brushes are made with either ⅜-inch or ½-inch arbor holes.

"Mono-Bilt" Brushes will be made of coarser or finer wire than No. 33, if desired.

Packed in individual cartons.

When ordering, please state size of arbor hole

"STEEL CLAD" WIRE WHEEL BRUSHES
Steel Center

Each Brush is a Complete Unit

Can Be Mounted Directly on Shaft

"Steel Clad" Brushes eliminate the necessity of hubs. They can be used singly, or in assemblies of any number desired.

No.	Diam.	Width of face	W. & M. wire gauge	Weight each	List each
130	15 in.	½ in.	30	1¾ lbs.	$1.50
131	12 in.	½ in.	30	1¼ lbs.	1.35
132	10 in.	½ in.	30	1 lb.	1.20
133	8 in.	½ in.	33	¾ lb.	.90
135	6 in.	⅜ in.	33	½ lb.	.80
136	5 in.	⅜ in.	33	⅜ lb.	.70
137	4 in.	⅜ in.	33	¼ lb.	.65
138	3 in.	⅜ in.	33	⅛ lb.	.55

When ordering, please state size of arbor hole.

STEEL WIRE CUP BRUSH

The wire is coarse and heavy to withstand the severe strain to which brush is subjected. This brush is especially designed for removing old paint, scale, rust, etc., from large metal surfaces.

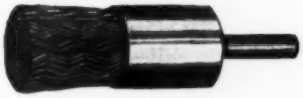
Length of wire 1⅝ in.

Diameter of brushing surface 6¼ in.

No.	Size of Wire	Weight each	List each
3335	.032	2¾ lbs.	$4.50

When ordering, please state size of arbor hole.

CARBON REMOVING BRUSH



No. 3319—⅞-inch diameter ferrule; ¼-inch diameter steel shank. Length of wire 1 inch. Length overall 3¾ inches. Weight, each, ¼ lb. List, each.....$1.75

Any of the brushes listed above can be made of coarser or finer wire if desired.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

WIRE CLEANING BRUSHES

Round Steel Wire Hand Brushes

MILWAUKEE Wire Brushes are made of best quality specially tempered fine carbon steel wire. They are built to exacting standards of uniformity and rigidly inspected before leaving our factory. The blocks are well filled—wires evenly trimmed, and securely fastened in carefully selected thoroly seasoned hardwood blocks. Every brush is a carefully balanced, efficient tool.

STRAIGHT BACK—SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1611	7¼x2¼	6x19	1⅝	115 lbs.	$54.00

For general use in removing paint, varnish, rust, grease, etc. Takes the place of sandpaper, steel wool and similar abrasives. Works faster and is more effective. Packed 1 dozen in carton.

LONG HANDLE SOLID BLOCK

Length of Brush part 6¼ inches.

No.	Rows	Length overall, inches	Length of wire, inches	Weight per gross	List per gross
1651	3x19	14	1¼	68 lbs.	$37.50
1656	4x19	14	1¼	78 lbs.	49.00

No. 1651 extensively used in auto repair shops and garages. No. 1656 designed for Braziers' finishing work. Packed 1 dozen in carton.

STRAIGHT HANDLE SOLID BLOCK

Length of Brush part 5 inches. Width of chiseled edge polished steel scraper 2⅞ inches.

No.	Rows	Length of wire, inches	Length overall, inches	Weight per gross	List per gross
1665	4x10	1½	11¼	115 lbs.	$108.00

Specially designed for removing varnish from floors, doors, etc., preparatory to refinishing. The scraper quickly removes loosened varnish, cleans thoroly and leaves a smooth surface. Packed 1 dozen in a carton.

FLAT STEEL WIRE BRUSHES

Solid Hardwood Block
Block 7¾x2⅝ inches.

No.	Rows	Length of wire, inches	Weight per gross	List per gross
1801	5x10	1¼	120 lbs.	$43.50
1802	5x10	1½	125 lbs.	45.00

In addition to cleaning butchers' blocks, these brushes are used for cleaning stone and brick surfaces and structural iron work.

CURVED BACK—SOLID BLOCK

No.	Inches	Rows	Length of wire, inches	Weight per gross	List per gross
1632	7⅛x2⅞	9x21	1¼	120 lbs.	$81.00

Heavily filled brushes with rocker faces. Very effective for removing varnish, and cleaning wood or metal surfaces preparatory to refinishing. Packed 1 dozen in carton.

WIRE DUSTER SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1661	2¾x1⅛	4x8	2⅜	45 lbs.	$54.00

Very effective for removing dirt and other accumulations between boards in old soft wood floors. Especially adapted for use on mouldings, baseboards, etc. Popular among mechanics for brushing chips and borings from machines. Packed 1 dozen in carton.

SHOE HANDLE SOLID BLOCK

Length of Brush part 5 inches.

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1646	⅝x10	2	1¼	38 lbs.	$43.50
1641	1x10	4	1⅛	60 lbs.	46.50

Especially designed for use in places inaccessible to larger and wider brushes. Also suitable for cleaning architectural iron work, figured brass, etc. No. 1641 is extensively used for brushing pipe threads, cleaning battery terminals, etc. No. 1646 packed 2 dozen in carton. No. 1641 packed 1 dozen in carton.

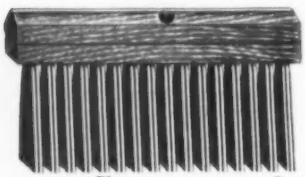
"REMUV-ALL"—NO. 1644

ALL METAL—FOR SHOP AND HOME USE
Indestructible—Sanitary—Indispensable
Fine Round Steel Wire

Length of wire	Length overall	Weight per gross	List per gross
1½ inches	5½ inches	15 lbs.	$20.00

For cleaning waffle irons, gas burners, drip pans, etc. Readily and easily cleans battery terminals and removes solder, chips, filings, etc. Packed 1 dozen in carton.

STREET PUSH BROOMS



WIRE PUSH BROOMS

Tempered Flat Steel Wire

No.	Size of block	Rows	Length of wire	Weight per doz.	List per doz.
1001	12x2⅝ in.	4	5 in.	28 lbs.	$15.00
1002	14x2⅝ in.	4	5 in.	33 lbs.	18.00

FIBRE PUSH BROOMS

Genuine African Bass

Length of Stock 6¼ Inches

No.	Size of block	Rows	Sweep of broom	Weight per doz.	List per doz.
1211	16x3½ in.	5	22 in.	42 lbs.	$19.00

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

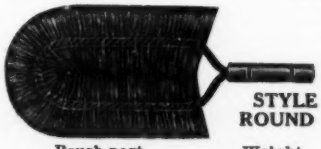
THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

STEEL WIRE FLUE BRUSHES



STYLE B—ROUND WIRE

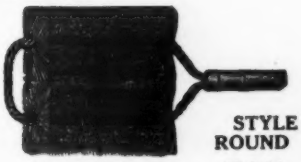
No.	Brush part, inches	Weight per 100	List per 100
1903	1¾x4x5½	75 lbs.	$90.00

STYLE D—ROUND WIRE (Rectangular)

No.	Brush part, inches	Weight per 100	List per 100
1915	2x4x4½	50 lbs.	$125.00
1916	3x5x4½	62 lbs.	150.00

STYLE M—FLAT WIRE (Oval)

No.	Brush part, inches	Weight per 100	List per 100
3017	2 x3¼x4	50 lbs.	$ 60.00
3051	2 x4 x4	60 lbs.	70.00
3252	1⅝x3¼x4	37 lbs.	60.00
3253	2 x3¾x5	62 lbs.	75.00
3254	2¾x4½x6	75 lbs.	90.00
3255	2¾x6¾x6¾	137 lbs.	200.00



STYLE A—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1900	1⅝x4 x4½	50 lbs.	$ 75.00
1901	2½x6 x4½	75 lbs.	125.00
1902	3½x6⅝x4½	88 lbs.	150.00

STYLE S—FLAT WIRE—SINGLE SPIRAL

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1950	4½	1 to 6	50 lbs.	$0.25

STYLE W—ROUND WIRE

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1953	4½	1 to 6	44 lbs.	$0.25

ROUND STEEL WIRE—SINGLE SPIRAL

Brush Part 4½ Inches Long

No.	Diameter of brush, inches	Length of handle, inches	Weight per 100	List per 100
914	3	48	60 lbs.	$50.00
916	4	48	64 lbs.	55.00
918	5	48	72 lbs.	60.00
924	3	60	68 lbs.	55.00
926	4	60	72 lbs.	60.00
928	5	60	80 lbs.	65.00

PLATERS' BRUSHES

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5½ inches. Length overall 12 inches. Length of stock 1-inch.

Selected White Tampico

No.	Rows	Width of block	Weight per gross	List per gross
1393	3	⅞ in.	34 lbs.	$36.00
1394	4	1¼ in.	45 lbs.	40.00

Stiff Black Chinese Bristle

No.	Rows	Width of block	Weight per gross	List per gross
2003	3	⅞ in.	26 lbs.	$72.00
2004	4	1¼ in.	31 lbs.	90.00

Nos. 1393, 2003 and 2004 packed 1 dozen in carton.
No. 1394 packed 6 dozen in carton.

Plain Finished Hardwood Solid Block. Staple set.
Length of Brush part 5 inches. Length overall 10 inches. Length of stock 1-inch.

Four Rows

No.	Stock	Width of block	Weight per gross	List per gross
1380	Grey Tampico Fibre	1 in.	42 lbs.	$45.00
1381	Black Chinese Bristle	1 in.	39 lbs.	90.00

Packed 1 dozen in carton.

FOUNDRY BRUSHES

MILWAUKEE Casting Brushes are made of best quality, specially drawn and tempered steel wire securely fastened in selected, solid hardwood blocks. Evenly trimmed wires and uniformly well filled blocks.

PLAIN CASTING BRUSHES

No.	Rows	Length of wire, inches	Size of block, inches	Weight per gross	List per gross
1731	4x10	3	7¾x2¼	120 lbs.	$50.00
1732	4x10	4	7¾x2¼	135 lbs.	60.50
1734	5x10	2	7¾x2⅝	128 lbs.	49.00
1736	5x10	3	7¾x2⅝	144 lbs.	60.50
1737	5x10	4	7¾x2⅝	160 lbs.	68.50

Shipped in bulk.

List Prices Indicate Relative Values

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

FLOOR SWEEPING BRUSHES

GENERAL PURPOSE

ALICE

Selected Black Tampico Center, Black Horsehair Casing. Staple set. Length of stock 2⅞ inches. Red polished block. Red polished handle.

Alice Brushes are adapted for all general sweeping. Can be effectively used on cement, linoleum covered or wood floors.

Length	Weight per doz.	List per doz.
14 in.	33 lbs.	$26.00
16 in.	36 lbs.	29.00
18 in.	39 lbs.	32.00
24 in.	50 lbs.	46.00

PURE STIFF HORSEHAIR

ALMA

Stiff Pure Black Horsehair. Staple set. Length of stock 2⅞ inches. Red polished block. Red polished handle.

Alma Brushes sweep thoroughly on tile and smooth finished floors. Extensively used on hotel and showroom floors.

Length	Weight per doz.	List per doz.
14 in.	33 lbs.	$35.00
16 in.	36 lbs.	38.00
18 in.	39 lbs.	41.00
24 in.	50 lbs.	66.00

STEEL WIRE AND FIBRE MIXTURE

ALENE

Mixed Fine Round Carbon Steel Wire and Selected Grey Fibre Center, Selected Grey Fibre Casing. Staple set. Length of stock 2¾ inches. Natural varnished block. Natural polished handle.

Alene Brushes, heavily filled, are effective on rough wood, cement or brick floors. Especially adapted for use in garages, machine shops, engine rooms, etc.

Length	Weight per doz.	List per doz.
16 in.	40 lbs.	$31.00
18 in.	44 lbs.	34.00
24 in.	56 lbs.	50.00

SPECIAL MIXTURE

VANGUARD

Pure Palmetto Center, Next Two Rows of Selected Grey Fibre. Pure Black Horsehair Casing. Staple set. Length of stock 3¼ inches. Red polished block. Red polished handle.

Vanguard Brushes excel in clean sweeping and prolonged wear. The Palmetto center adds cutting power and brushing resistance.

Length	Weight per doz.	List per doz.
16 in.	39 lbs.	$45.00
18 in.	42 lbs.	50.00
24 in.	54 lbs.	71.00

HEAVY DUTY BASSINE

JOE

Good Quality Bassine Fibre. Staple set. Length of stock 4 inches. Natural varnished block. Extra heavy plain handles, tapered ends.

Very serviceable for the heavier kinds of sweeping in factories, mills, garages, etc.

Length	Weight per doz.	List per doz.
16 in.	49 lbs.	$30.00
18 in.	54 lbs.	33.00
24 in.	66 lbs.	45.00

STEEL WIRE CENTER

HUMMER

Center Row of Fine Round Steel Wire. Selected Black Tampico Fibre in Balance of Brush. Staple set. Length of stock 2⅝ inches in center row, 2⅞ inches in outer rows. Natural varnished block. Natural polished handle.

Hummer Brushes, because of their wire center, cut through grime and grease on dirty floors, leaving a clean surface.

Length	Weight per doz.	List per doz.
16 in.	40 lbs.	$31.00
18 in.	44 lbs.	35.00
24 in.	56 lbs.	54.00

Weights and prices listed on all floor brushes include handles.
All above brushes packed in individual cartons.

COUNTER BRUSHES

MAJOR

Pure Black Horsehair. Staple set. Natural Polished Blocks. Length of stock 2¼ inches.

Size	Weight per doz.	List per doz.
8 inches	6 lbs.	$10.50
9 inches	7 lbs.	11.50

A practical and serviceable brush for factory or general use at a low price.

Packed ½ dozen in carton.

OHIO

Stiff Black Horsehair. Staple set. Natural Polished Block. Heavily Filled. Length of stock 2⅞ inches.

Size	Weight per doz.	List per doz.
8 inches	9 lbs.	$20.00
9 inches	10 lbs.	24.00

Splendid brushes for factories, stores, offices, etc.

List Prices Indicate Relative Values

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THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Foundry

Browne, F. W., Co., Farmington, N. H.
Elder & Jenks, Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lattner, A., & Sons, Detroit, Mich.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Manufacturers Brush Co., The, Cleveland.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
National Brush Co., Aurora, Ill.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sence, L., & Son, New York, N. Y.
Spear Carbon Co., St. Marys, Ohio.
Van Expansion Bolt Mfg. Co., Chicago.
Warner, W. E., & Co., New York, N. Y.
Wilson, Ludwig, Co., Chicago, Ill.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Glue

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Manufacturers' Belt Hook Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A., Co., New York, N. Y.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Lacquering

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Loom and Comber

Elder & Jenks, Philadelphia, Pa.
Haisler Bros. Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Molders'

(See "Brushes, Foundry")

Brushes, Oil, Machinists'

Elder & Jenks, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E.. Co., New York. N. Y.

Brushes, Paint, Varnish, Calcimine, Whitewash, Etc.

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Manufacturers Brush Co., The, Cleveland, Ohio.
National Brush Co., Aurora, Ill.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Platers' and Polishers'

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
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Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Portable Grinding

Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee. Wis.
Stanley Electric Tool Division, Cleveland, O.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Warner, W. E., & Co., New York, N. Y.

Brushes, Radiator

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.

Brushes, Roofing

All States Roofers Equipment & Material Co., Chicago, Ill.
Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Sander

Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, Cleveland, O.
Warner, W. E., & Co., New York, N. Y.

Brushes, Sanitary

Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Scratch

(See "Brushes, Wire")

Brushes, Scrub

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.

PAINT and VARNISH BRUSHES

● Refer to the Osborn Catalog for a complete description of the following extensive line of Osborn Paint and Varnish Brushes:

Flat Varnish Brushes
Oval Varnish or Paint Brushes
Wall Paint Brushes
Whitewash and Kalsomine Brushes
Roof Brushes
Glue and Stencil Brushes
Sash Tools
Painters' Dusters
Soft Hair Brushes
Miscellaneous Paint and Varnish Brushes

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

OSBORN

STEEL WIRE SCRATCH BRUSHES

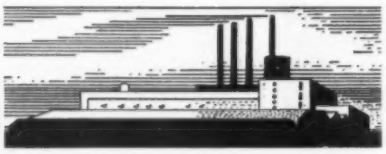
● Accurately designed and constructed for faster and better work, Osborn Steel Wire Scratch Brushes are made in various popular shapes and sizes to meet all requirements for cleaning, removing and brushing. Refer to the Osborn Catalog for specific information about . . .

Curved Handle Scratch Brushes
Straight Handle Scratch Brushes (with Scraper attached)
Shoe Handle Scratch Brushes
Duster Type Scratch Brushes
Straight Back Scratch Brushes
Curved Back Scratch Brushes

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

OSBORN



MODERN INDUSTRY NEEDS MODERN BRUSHES

Pittsburgh Plate Glass Company Wire Brushes are recognized leaders because they're the latest, most modern development in the field. Progressive plant managers demand them because they know by experience that these superior brushes mean fewer replacements, finer work, and economy of upkeep.

We can help you solve your brush problem. Our wide variety covers every need of modern industry—steel, automotive, metal, glass, rubber. Branches in principal cities, with representative stocks, are equipped to aid distributors serve industry more effectively.

Write for our free illustrated Wire Brush catalog. No obligation. State whether interested in brushes for plant maintenance or wire brushes for production needs. Complete information on the entire line is yours for the asking. Perfect Balance Rotary Brushes, Multiple Section and Spiral Wound Rolls, "Red Center" Wheels, Tampico Sections, Wire Cups, Uni-fill Scratch Brushes, Paint and other Maintenance Brushes. There is an answer to your brush problem here.

WIRE AND TAMPICO SECTIONS

ABRASIVE WIRE WHEELS

SCRATCH BRUSHES

A PRODUCT OF

PITTSBURGH PLATE GLASS COMPANY

BRUSH DIVISION • BALTIMORE, MD.

Also manufacturers of Gold Stripe Brushes and nationally known paint products

Manufacturers Brush Co., The, Cleveland.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.

Brushes, Stencil

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Varnish

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Wheel, Bristle and Fibre

Elder & Jenks, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester. Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wheel, Wire and Fibre

Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, Cleveland, O.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Whitewash

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Window Washing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.

Brushes, Wire, Circular

Dallett Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Division, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wire, Hand

Dallett Co., The, Philadelphia, Pa.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.

WIRE and FIBRE WHEEL BRUSHES

● For specific data on the following extensive line of Osborn Wheel Brushes, refer to the Osborn Catalog:

WIRE WHEEL BRUSHES

"Master" Wire Wheels
"Monitor" Wire Sections
"Economy" Wire Sections
"Riehl" Wire Sections
"Disc-Center" Wire Sections
End and Circular Attachment Brushes
Coarse Wire Cup Brushes
Wood Hub Fine Wire Wheels

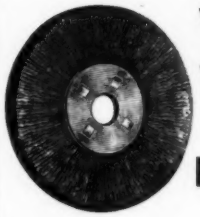
FIBRE WHEEL BRUSHES

"Triumph" Tampico Sections and Wheels
"Improved Monarch" Tampico Sections
"Solid Triumph" Tampico Wheels
Staple Set Tampico Wheels

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

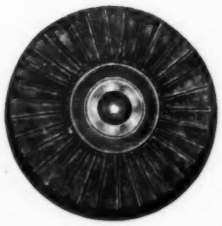
OSBORN



WIRE WHEEL • BRUSHES

The Schaefer line of wire wheel brushes is complete — fine and coarse wire, brass and steel wire, fibre or bristle. Depend on it to supply you every requirement in all shapes and sizes. Also count on Schaefer for allied lines of industrial brushes. 30 years in service to industry.

FINE BRASS or STEEL WIRE BRUSHES



SCHAEFER BRUSH MFG. CO.
1011 S. 2nd St. MILWAUKEE

Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Buckets, Clam Shell and Orange Peel

Blaw-Knox Co., Pittsburgh, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Harnischfeger Corp., Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Marion Steam Shovel Co., The, Marion, O.
Seaverns, James B., Co., Batavia, Ill.

Buckets or Pails—Fire, Water, Etc.

(See "Pails")

Buckets, Grease

Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Buffer-Grinder, Combination

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Buffers

(See "Machines, Buffing and Polishing," and "Machines, Buffing, Pneumatic")

Buffing and Polishing Wheels

(See "Wheels, Buffing and Polishing")

Buggies, Lumber

(See "Trucks and Buggies, Lumber")

Bulbs, Electric

(See "Lamps, Electric")

Bulbs, Furnace, Rubber

Bernz, Otto, Co., Inc., Rochester, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.

Bull Points

American Swiss File & Tool Co., Elizabeth, N. J.
Arro Expansion Bolt Co., Marion, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Kilborn & Bishop Co., New Haven, Conn.

Bulldozers

Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.

Bumpers, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Colson Corp., The, Elyria, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Nutting Truck Co., Faribault, Minn.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Burners, Annealing

Best, W. N., Corp., New York, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
R. S. Products Corp., Philadelphia, Pa.

Burners, Bunsen

Boekel, Wm., & Co., Philadelphia, Pa.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Hones, Chas. A., Inc., Baldwin, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Burners, Combination, for Fuel Oil and Gas

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Morley Co., LaPorte, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
R. S. Products Corp., Philadelphia, Pa.

Burners, Kerosene, Portable

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Perkins Marine Lamp Corp., Brooklyn.
Sandvik Saw & Tool Corp., Minneapolis.
Scovill Mfg. Co., Waterbury, Conn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Burners, Lead

(See "Lead Burning Outfits")

Burnishing Machines

(See "Barrels, Burnishing" and "Machines, Buffing and Polishing")

Burring Machines

(See "Machines, Burring")

Burrs, Brass and Copper

(See "Rivets and Burrs, Brass and Copper")

Burrs, Steel and Wrought Iron

(See also "Files, Rotary")

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, O.
Pratt & Whitney Co., Hartford, Conn.
Reed & Prince Mfg. Co., Worcester, Mass.
Stanley Works, The, New Britain, Conn.
United Screw & Bolt Corp., Cleveland, O.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Bushings, Bronze, Finished

Aluminum Industries, Inc., Cincinnati, O.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bearium Metals Corporation, Rochester, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Buckeye Brass & Mfg. Co., The, Cleveland.
Bunting Brass & Bronze Co., Toledo, O.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Metal Works, Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O.
Everitt Co., The, Boston, Mass.
Fredericksen Co., Saginaw, Mich.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Huron Industries, Inc., Alpena, Mich.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Link-Belt Co., Chicago, Ill.
Magnolia Metal Co., Elizabeth, N. J. (Semi-finished)
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
New York Brass Foundry Co., New York.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Palmer-Bee Co., Detroit, Mich.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Sumet Corp., Buffalo, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Bronze, Flanged

Aluminum Industries, Inc., Cincinnati, O.
American Injector Co., Detroit, Mich.
Bearium Metals Corp., Rochester, N. Y.
Buckeye Brass & Mfg. Co., The, Cleveland.
Bunting Brass & Bronze Co., Toledo, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., Columbus, O.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg., The, Elmira, N. Y.
Link-Belt Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Palmer-Bee Co., Detroit, Mich.
Sumet Corp., Buffalo, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Die Stock

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Bushings, Hose

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Jiffy Fire Hose Rack Co., New York, N. Y.
Mulconroy Co., Inc., Philadelphia, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Bushings, Pipe, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Metal Works, Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkes, Charles Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
United American Metals Corp., Brooklyn.
Walworth Co., New York, N. Y.

Bushings, Pipe, Cast Iron and Malleable

Armstrong Manufacturing Co., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lubriplate Corp., New York, N. Y.
Malleable Iron Fittings Co., Branford, Conn.

Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Bushings, Pipe, Steel

Crane Co., Chicago, Ill.
Globe Steel Tubes Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Mitchell, W. K., & Co., Inc., Philadelphia.
Newbury Manufacturing Co., Monroe, N. Y.
Ralco Manufacturing Co., Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Bushings, Pulley, Loose

Arguto Oilless Bearing Co., Philadelphia.
Boston Gear Works, Inc., North Quincy, Mass.
Bunting Brass & Bronze Co., Toledo, Ohio.
Chicago Pulley & Shafting Co., Chicago.
Dick., R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
Maurey Manufacturing Corp., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Moccasin Bushing Co., Chattanooga, Tenn.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Roller Bearing

American Hoist & Derrick Co., St. Paul.
Boston & Lockport Block Co., East Boston, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Hartford Machine Screw Co., Hartford, Conn.
Lignum-Vitae Products Corp., Jersey City, N. J.
McMillan's, W. H., Sons, New York, N. Y.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Torrey Roller Bushing Works, Bath, Me.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bushings, Self-Lubricating

American Hoist & Derrick Co., St. Paul.
Arguto Oilless Bearing Co., Philadelphia.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Brown Engineering Co., Reading, Pa.
Bunting Brass & Bronze Co., Toledo, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Johnson Bronze Co., New Castle, Pa.
Lignum-Vitae Products Corp., Jersey City, N. J.
Madesco Tackle Block Co., Easton, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Merriman Bros., Inc., Boston, Mass.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Moccasin Bushing Co., Chattanooga, Tenn.
Plymouth Manufacturing Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Torrey Roller Bushing Works, Bath, Me.
United States Graphite Co., The, Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bushings, Soldering

American Foundry & Mfg. Co., St. Louis.
Midland Mfg. Co., Ft. Worth, Tex.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, M. (Brass)

Bushings, Wood

Arguto Oilless Bearing Co., Philadelphia.
Boston & Lockport Block Co., East Boston, Mass.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
McMillan's, W. H., Sons, New York, N. Y.
Medart Co., The, St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Palmer-Bee Co., Detroit, Mich.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

Busters, Rivet

Chicago Pneumatic Tool Co., New York.
Drew, C., & Co., Kingston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Busters, Rivet, Pneumatic

Chicago Pneumatic Tool Co., New York.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
King Pneumatic Tool Co., Chicago, Ill.

Butts, Belting, Rough

Chicago Rawhide Mfg. Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Williams, I. B., & Sons, Dover, N. H.

Butts and Hinges, Steel

Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Scovill Mfg. Co., Waterbury, Conn.
Stanley Works, The, New Britain, Conn.
Torrey Roller Bushing Works, Bath, Me.
Veeder-Root Incorp., Hartford, Conn.
Western Products, Inc., Newcastle, Ind.

Cabinets, for Bolts, Screws, Etc.

Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Heller Bros. Co., Newark, N. J.
Heller, W. C., & Co., Montpelier, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Warren, J. D., Mfg. Co., Montpelier, Ohio.

Cabinets, Drill

(See "Cases, Drill and Reamer")

Cabinets, Fire Extinguisher

Allen, W. D., Mfg. Co., Chicago, Ill.
Durabilt Steel Locker Co., Aurora, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Safety Wrench & Appliance Co., Springfield, Mass.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Cabinets, Fire Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Durabilt Steel Locker Co., Aurora, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Cabinets and Equipment, First Aid

Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, O.
Bullard, E. D., Co., San Francisco, Cal.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland (Equipment)
Safety Fire Extinguisher Co., The, Cleveland, Ohio.

Cabinets, Lathe Tool

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Pollard Bros. Mfg. Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Cabinets, Oil Storage

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Bowser, S. F., and Co., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, Ohio.
Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Durabilt Steel Locker Co., Aurora, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Stevens, Walden, Inc., Worcester, Mass.

Cabinets, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
Dallett Co., The, Philadelphia, Pa.
Leiman Bros., Inc., Newark, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sutorbilt Corp., Los Angeles, Calif.

Cabinets, Storage, Steel

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Canton Art Metal Co., The, Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Heller, W. C., & Co., Montpelier, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Remington Rand, Inc., Buffalo, N. Y.

Cable, Highway Guard

American Cable Co., Inc., Wilkes-Barre, Pa.
American Chain Co., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Cables, Well Drilling

American Cable Co., Inc., Wilkes-Barre, Pa.
American Manufacturing Co., Brooklyn, N. Y.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
New York Cordage Co., New York, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Simplex Wire & Cable Co., Boston, Mass.
Upson-Walton Co., The, Cleveland, Ohio.
Wall Rope Works, Inc., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

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Linde Air Products, Inc., The, New York.
National Carbide Sales Corp., New York.
National Lead Co., New York, N. Y.
Shawinigan Products Corp., New York.

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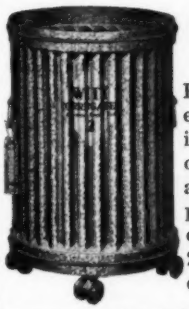

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For quickly and efficiently collecting rubbish and offal, for moving and storing small parts, oils, paints, etc. 3 sizes, 20, 27 and 33 gallons capacities.

There are also Witt Hoisting Cans, Witt Hooded Cans, and all kinds of special Cans to meet your individual requirements.

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Lufkin Rule Co., The, Saginaw, Mich.
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Starrett, L. S., Co., The, Athol, Mass.

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Harker Mfg. Co., Cincinnati, Ohio.
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Gem Manufacturing Co., Pittsburgh, Pa.
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(See "Oilers")

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(See "Fittings, Hose")

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Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
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McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
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Pittsburgh Valve & Fittings Co., Barberton, Ohio.
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Sherman, H. B., Mfg. Co., Battle Creek, Mich.
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For all volatile liquids. Safe, no leakage, no waste, no funnel needed, reduces insurance rate. Natural grip lever, easy carrying handle. Sizes: pt., qt., ½, 1, 3 and 5 gal. Approved, inspected and labeled by Und. Lab. Inc.

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Galvanized steel. Iron band handle and legs. Step on handle to open. Closes itself. Reduces fire hazard and insurance rate. Holds waste, rags and other dangerous wastes. Leakproof. App., insp. and lab. Cap. 6, 8, 10 and 14 gal.

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JUSTRITE MFG. CO.

2083 Southport Av., Chicago

SWACO

SAFETY CAR MOVER

SPURS bite into the rail edges

This Swaco car mover is light in weight, 16 lbs., yet is powerful and rugged. The pressure is scientifically triangulated to throw entire weight on spurs which are so placed as to grip the corners of the rail . . . not a chance of slipping.

This mover will get UNDER the load and place the handle high, enabling the operator to use full strength safely in starting the car.

Mover "ratchets" easily once the car is started and the angle of spurs prevents any chance of mover leaving the rail accidentally.

SPECIFICATIONS

Handle—Selected white hickory, 53½" long, waxed finish. Spurs — Special heat treated alloy steel with four sharp edges placed at extreme angle to grip the corners of the rail rather than the hard glazed top surface.

SAFETY WRENCH & APPLIANCE CO.
56 Commercial St.
WORCESTER, MASS.

Also see our advertisement on SWACO Safety Hopper Car Wrench near listing "Wrenches, Car."

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Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Safety Wrench & Appliance Co., Worcester, Mass.
Stafford Co., The, Chicago, Ill.
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(See "Pullers, Car")

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THE NEW STREAMLINED ATLAS

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★ Newly Designed
★ Well Balanced
★ Easily Handled
★ Quick Follow Up
★ Most Powerful

The best features of this well known car mover—its tremendous power, its absolute dependability and its ease of operation—are retained and new ones have been added to make the new streamline ATLAS a truly modern tool. It is of pleasing, ornamental design, easily handled and well balanced and will certainly appeal to your trade as the most efficient, most powerful car mover on the market.

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ATLAS Car Wrench

A safe tool for opening hopper type cars. Fits any tap from 1" to 2¾" without adjustment. Automatically opens when the shaft begins to spin. It is made of malleable iron castings with rock maple handles and is guaranteed against all manufacturing defects.

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ATLAS car MOVER POWER!

ADVANCE CAR MOVER CO., Inc., APPLETON, WIS.

Car Movers - - Car Wrenches

BADGER POWER KING CAR MOVER

A mover with triple compound leverage, alloy steel roller type, giving faster action and greater ease in operation, with no lost motion. Spurs set at an angle in concave spur plate, assuring positive track grippage. Spur plate so constructed as to eliminate wear on shoe. Improved saddle toggle and improved connection so arranged that both nose and shoe and toggle operate as a single unit. This mover has a world of power and will move a locomotive. Handle is selected maple, straight grained and turned oversize.

Weight, 18 pounds. Length over-all, 70 inches.

Price $9.00

BADGER POWER BOY CAR MOVER

Designed to handle average loads. Provides great power because of its short coupled saddle toggle. Rounded nose on saddle toggle gives fast action and elongated slot on shoe eliminates lost motion. As in Power King, spurs are set at an angle in a concave spur plate. This mover is two and one-half pounds lighter and has no equal for average car moving. Special malleable constructed. Handle is selected maple and is straight grained and turned oversize.

Weight, 15½ pounds. Length over-all, 68 inches.

Price $8.00

NEW BADGER No. 5 CAR MOVER

The NEW BADGER is light and well balanced, easy to handle and transport from place to place. Compound leverage provides a powerful forward thrust that will move any car. Besides having the "power" it has a quick-acting toggle action that will move and follow up empty cars faster than any other.

Castings—Certified Malleable Iron of very highest tensile and ultimate strength.

Handle—Selected Wisconsin Rock Maple—straight grained and turned oversize.

Spurs—Slip-proof, double construction. Made of Special steel rolled for the purpose and carefully hardened and oil drawn.

Weight, 18 pounds. Length over-all, 70 inches.

Price Complete, $8.00 List

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The Advance automatically adjusts itself for attaching to any size winding taps found on standard drop bottom cars. Simply toss the wrench on the winding tap, press the handle and the jaws close until the square of the winding tap is firmly gripped. Nothing to get out of order—no teeth to mar the tap or get dull. One bolt holds all the castings together. Perfectly safe to operate—a slight jerk instantly releases the wrench so that the winding tap can spin freely without catching the wrench and striking the operator. Made of sturdy Certified Malleable oversize castings—hard maple handle. Length, over-all, 60 inches. Weight, 16 pounds.

Price $8.00

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No. K	SADDLE TOGGLE with rivet	1.00
No. I	PLATE with bolt No. L	.50
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No. W	RIVET for Saddle Toggle	.10
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Repair Parts

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No. 102	SOCKET	2.40
No. 103	HANDLE	1.50
No. 104	BOLT	.20
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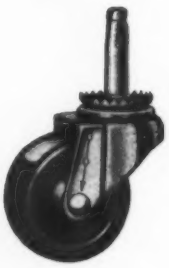
FOR EVERY PURPOSE

Casters for everything from tea tables to ten ton trucks



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Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

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Fairbanks Co., The, New York, N. Y.
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Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Littleford Bros., Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Nutting Truck Co., Faribault, Minn.
Schwenk Safety Device Corp., New York.

Carts, Hose

Goodall Rubber Co., Philadelphia, Pa.
Jiffy Fire Hose Rack Co., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Co., Philadelphia, Pa.

Cases, Drill and Reamer

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio. (Drill cabinets)
Cleveland Twist Drill Co., The, Cleveland.
Cross Engineering Co., Carbondale, Pa.
Durabilt Steel Locker Co., Aurora, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Heller, W. C., & Co., Montpelier, Ohio.
Standard Tool Co., The, Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cases, Flexible Shaft

(See "Cores and Cases, Flexible Shaft")

Cases, Tool, Leatherette

Bonney Forge and Tool Works, Allentown, Pa.
Forged Steel Products Co., Newport, Pa.

Casing, Steam Pipe

(See "Covering or Casing, Steam Pipe")

Casing or Tubing, Well

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Littleford Bros., Cincinnati, Ohio.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Sacramento Pipe Works, Sacramento, Calif.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.

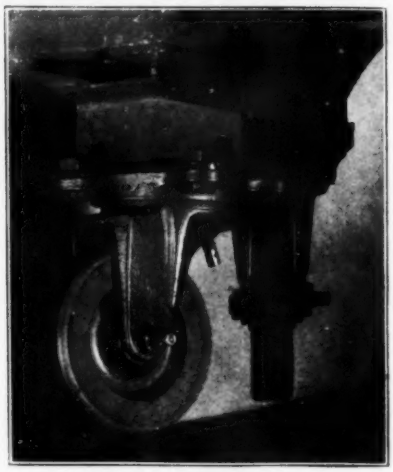
Casings, Elevator, Steel and Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., Marion, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Casters, Truck

Armstrong Truck Co., North Wales, Pa.
Bassick Co., The, Bridgeport, Conn.
Bond Foundry and Machine Co., Manheim, Pa.

The ACE of CASTERS



(See also the QUEEN of TRUCKS under "Trucks")

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529 N. Albion St., Albion, Mich.

Colson Corp., The, Elyria, Ohio.
Divine Brothers Co., Utica, N. Y.
Darnell Corporation, Long Beach, Calif.
Fairbanks Co., The, New York, N. Y.
Faultless Caster Corporation, Evansville, Ind.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Hamilton Foundry & Machine Co., Hamilton, Ohio.
Harris & Reed Mfg. Co., Chicago, Ill.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Metzgar Company, The, Grand Rapids, Mich. (Wood)
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nice Ball Bearing Co., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.

HAMILTON
INDUSTRIAL CASTERS

Ball Bearing — Roller Bearing

Swivel and Rigid

Metal Wheels—Rubber Tired Wheels

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HAMILTON, OHIO

Oliver Machinery Co., Grand Rapids, Mich.
Palmer-Bee Co., Detroit, Mich.
Payson Mfg. Co., The, Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sargent & Co., New Haven, Conn.
Service Caster & Truck Co., The, Albion, Mich.
Sterling Wheelbarrow Co., Milwaukee.
West Bend Equipment Corp., West Bend, Wis.

Catalogs Compiled and Printed

Cuneo Catalog Service Co., The, Chicago.
Donnelley, R. R., & Sons Co., Chicago, Ill.
Von Hoffmann Press, St. Louis, Mo.
Wayne Catalog Co., Richmond, Ind.

Catch Basins, Blow-off, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Elkhart Foundry & Machine Co., Elkhart, Ind.
Elkhart Iron Works, Elkhart, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.

Catch Basins, Sewer

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Elkhart Iron Works, Elkhart, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Noyes, B. B., Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
S. E. T. Valve and Hydrant Co., New York.

Ceilings, Metal

Berger Mfg. Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Edwards Mfg. Co., The, Cincinnati, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

Cement, Asbestos and Magnesia, for Boilers and Furnaces

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Clinton Metallic Paint Co., Clinton, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York.
Keasbey & Mattison Co., Amber, Pa.
National Asbestos Mfg. Co., The, Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Refractory & Engineering Corp., New York.
Ruberoid Co., The, New York, N. Y.
Smith & Kantzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Cement, Belt

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bonner & Barnewall, Inc., New York.
Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Eagle Belting Co., Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber belts only)
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Holyoke Belting Co., Holyoke, Mass.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
Johnson Belting Co., New York, N. Y.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
Manufacturers' Belt Hook Co., Chicago.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Norton Belting Co., Wellesley Hills, Mass.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Cement, Boiler Front

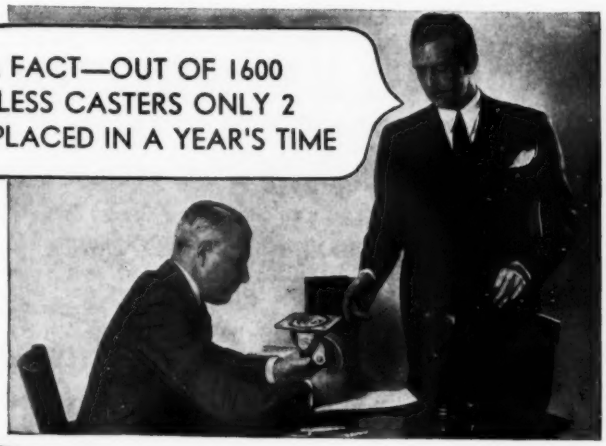
Carey, Philip, Co., The, Lockland, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Keystone Refractories Co., New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
Otley Paint Mfg. Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sauereisen Cements Co., Pittsburgh, Pa.
Wills Products Co., The, New York, N. Y.

Cement, Disc

Besly, Charles H., and Co., Chicago, Ill.
Carborundum Co., The, Niagara Falls, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.

Cement, Fire Brick

Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Carborundum Co., The, Niagara Falls, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Johns-Manville, New York.
Keystone Refractories Co., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N Y.



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Sauereisen Cements Co., Pittsburgh, Pa.
Wahl Refractory Products Co., The, Fremont, Ohio.

Cement, Furnace

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Barber Asphalt Co., The, Philadelphia, Pa.
Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Carborundum Co., The Niagara Falls.
Carey, Philip, Co., The, Lockland, Ohio.
Colebrook's, W. H., Sons, Inc., Syracuse.
Connors, Wm., Paint Mfg. Co., The, Troy.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Huyette, Paul B., Co., Inc., Philadelphia.
Johns-Manville, New York.
Keasbey & Mattison Co., Ambler, Pa.
Keystone Refractories Co., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
Lyon, Conklin & Co., Inc., Baltimore, Md.
McLeod & Henry Co, Troy, N. Y.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Quigley Co., Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Refractory & Engineering Corp., New York.
Ruberoid Co., The, New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Wahl Refractory Products Co., The, Fremont, Ohio.

Cement, Gasket

Akron Metallic Gasket Co., Akron, Ohio.
Alexander Brothers, Inc., Philadelphia, Pa.
Baum's Castorine Co., Rome, N. Y.
Crane Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Fostoria Pressed Steel Corp., The, Fostoria, Ohio.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill.
Key Co., East St. Louis, Ill.
Quigley Co., Inc., New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Smooth-On Manufacturing Co., Jersey City, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wilbur & Williams Co., The, Boston, Mass.

Cement, High Temperature

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Carborundum Co., The, Niagara Falls, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Huyette, Paul B., Co., Inc., Philadelphia.
Johns-Manville, New York.
Key Co., East St. Louis, Ill.
Keystone Refractories Co., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Norton Co., Worcester, Mass.
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Otley Paint Mfg. Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Refractory & Engineering Corp., New York.
Ruberoid Co., New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Smooth-On Manufacturing Co., Jersey City, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
Wahl Refractory Products Co., The, Fremont, Ohio.

Cement and Filler, for Iron and Steel

Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Otley Paint Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sauereisen Cements Co., Pittsburgh, Pa.
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Whitlam, J. C., Mfg. Co., Wadsworth, O.

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(Not soluble in oil)

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Norristown Magnesia & Asbestos Co., Norristown, Pa.
Refractory & Engineering Corp., New York.

Cement or Compound, Pipe Joint

Barber Asphalt Co., The, Philadelphia, Pa.
Baum's Castorine Co., Rome, N. Y.
Blue Seal Chemical Co., Roselle Park, N. J.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Cling-Surface Co., Buffalo, N. Y.
Colebrook's, W. H., Sons, Inc., Syracuse.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Crane Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
General Electric Co., Schenectady, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Grinnell Co., Inc., Providence, R. I.
Hinds and Coon Co., Boston, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.
Johns-Manville, New York.
Key Co., East St. Louis, Ill.
Key Lubricating Co., Philadelphia, Pa.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., San Francisco.
Quigley Co., Inc., New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Smooth-On Manufacturing Co., Jersey City, N. J.
Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., The, Saginaw, Mich.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston, Mass.
Wills Products Co., The, New York, N. Y.

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For use on Flanges, Gaskets and all Pipe Connections where a waterproof compound is necessary.

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Schieren, Chas. A., Co., New York, N. Y.

Cement, Pulley Surfacing

(See "Covering, Pulley")

Cement, Refractory

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Carey, Philip, Co., The, Lockland, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Huyette, Paul B., Co., Inc., Philadelphia
Johns-Manville, New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Quigley Co., Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Refractory & Engineering Corp., New York.
Sauereisen Cements Co., Pittsburgh, Pa.
Smooth-On Manufacturing Co., Jersey City, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Wahl Refractory Products Co., The, Fremont, Ohio.

Cement, Roofing

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Carter Paint Co., Liberty, Ind.
Colebrook's, W. H., Sons, Inc., Syracuse, N. Y.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flexrock Co., Philadelphia, Pa.
Johns-Manville, New York.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Ruberoid Co., The, New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Cement, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Carey, Philip, Co., The, Lockland, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Gross Rubber Co., Sharon, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Miller Rubber Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.
Norton Belting Co., Wellesley Hills, Mass.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wilbur & Williams Co., The, Boston, Mass.

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For Special Shapes and Oil Burners—HEARTH ASBESTOS FURNACE CEMENT

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Ideal Commutator Dresser Co., Sycamore, Ill.
Otley Paint Mfg. Co., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Wilbur & Williams Co., The, Boston, Mass.

Center Finders

(See "Finders, Center")

Centering Machines

(See "Machines, Centering")

Centers, Bench

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Delta Mfg. Co., Milwaukee, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.

Centers, Index

Brown & Sharpe Mfg. Co., Providence, R. I.
Knight, W. B., Machinery Co., St. Louis.
Sundstrand Machine Tool Co., Rockford, Ill.

Centers and Points, Lathe

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cleveland Twist Drill Co., Cleveland, O.
Collis Co., The, Clinton, Iowa.
Glenzer, J. G., Co., The, Detroit, Mich.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Centrifugals

Ampco Metal, Inc., Milwaukee, Wis.
Barrett, Leon J., Co., The, Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Decatur Pump Co., Decatur, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.

Chain, Block or Pocket Wheel.

American Chain Co., Inc., Bridgeport, Conn.
Boston Gear Works, Inc., North Quincy, Mass.
Boston & Lockport Block Co., East Boston, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.

Ford Chain Block Co., Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Boiler

(See "Chain, Heating Furnace and Boiler")

Chain, Boom or Rafting

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Company, Inc., Philadelphia.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Brake

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Brass and Bronze

American Chain Co., Inc., Bridgeport, Conn.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Diamond Chain and Mfg. Co., Indianapolis.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Michigan Sprocket Chain Co., Detroit.
Newhall Chain Forge & Iron Co., New York.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

Chain, Breast

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Cable

American Chain Co., Inc., Bridgeport, Conn.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Smith & Egge Division of The Turner & Seymour Mfg. Co., Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Coil

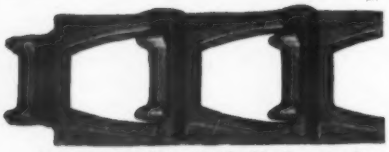
American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton, E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Conveyor and Elevator

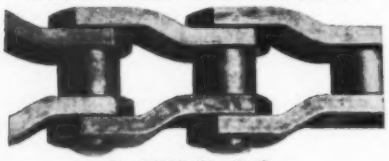
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Chain Co., Inc., Bridgeport, Conn.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.

(Continued on page 74)

Chains for Elevators — Conveyors — and Drives . .



Detachable Link (Malleable-Supermal)



Steel Thimble Roller

JEFFREY MATERIAL HANDLING EQUIPMENT:

Chains
Conveyors
Elevators
Belt Idlers
Spiral Conveyors
Portable Loaders
Buckets
Chutes
Valves
Transmission Machinery
Crushers and Pulverizers
Feeders

From the complete line of Jeffrey Chains you can select a type—steel, malleable or "Supermal"—for any elevating, conveying or driving need.

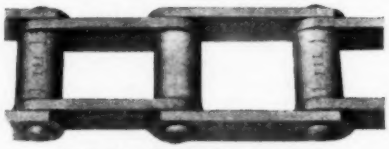
Resistance to wear, high tensile strength and elastic limit, are qualities to be found in all Jeffrey Chains. Elevating, conveying and driving units equipped with them, give long life and dependable service with a minimum of repairs.

"Supermal" is a superior quality of malleable iron produced by a process that materially increases its resistance to wear and raises the tensile strength and elastic limit, yet does not appreciably reduce elongation.

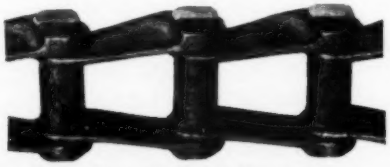
Prompt shipment assured from large stock. Write us today.

Peerless (Malleable-Supermal)

Malleable Roller (also Supermal)



Hercules (Malleable-Supermal)



Reliance (Malleable-Supermal)

THE JEFFREY MFG. CO.

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EVERY BRANCH OF SERVICE

"HOW TO HANDLE IT"

If It Is Power—If It Is Material

Two of your problems that can be solved—at a lower cost—by Rex Chain Engineers. Rex Chain Engineers KNOW the chain needs of every industry.

Shown on this page are some of the standard types of most general application—many of them—notably Griplock, Unicast, Durobar, Rex Snake, Chabelco—were originally developed by the Chain Belt Company.

Also available in the complete Rex Line are many special chains, built for particular industries: such as lumber, oil, construction machinery, sugar mills, steel mills, mines and quarries.

CHAIN BELT COMPANY

1622 W. Bruce Street **Milwaukee, Wisconsin**

Cable Address: BELTCHAIN

REX

DETACHABLE

An inexpensive general service chain for elevator, conveyor and transmission service at medium speed.

REX

PINTLE

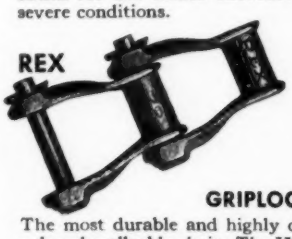
A moderate cost chain with strength and serviceability for general conveyor and power transmission work.

REX

RIVETED MILL CHAIN

A stronger, longer lasting mill chain for use under extremely severe conditions.

REX



GRIPLOCK

The most durable and highly developed malleable chain. The Hidden Shoulders of the Griplock Joint greatly increase its strength, live-bearing area, and working life.

REX

UNICAST

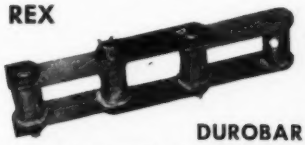
This one-piece link roller chain—with the roller cast in place—effectively solves the problem of eccentric loads on double strand conveyors.

REX

SNAKE

A conveyor chain that flexes in any direction on a short arc. Especially useful in remodeling, as it is adaptable to changed layouts.

REX



DUROBAR

The added metal on the barrel of the block links makes this a longer lasting combination chain—especially when cast in Z-Metal. (See back cover.)

REX

LEY BUSHED

Designed for exceptionally severe service conditions handling gritty and abrasive materials.

REX

CHABELCO

A highly developed steel chain with Rex Press Fit and Unit Link construction. For heavy duty drives and conveyors.

REX

ROLLER CHAIN

The most highly finished chain on the market today for long service and low cost on high speed drives.

REX

DRAW BENCH AND CAR HAUL

For metal drawing, steel transfer, and car haul service. These chains have extremely high tensile strengths—permit tremendous loads.

CHAIN BELT COMPANY

REX CHAIN FOR EVERY DRIVE AND CONVEYOR

ACCO

CHAINS FOR ALL INDUSTRIAL PURPOSES

MACHINE • AJAX LOADING • DREDGE, SLING
PROOF COIL • LOGGING • CORROSION RESISTING
H. C. HIGH TEST • CONVEYOR • TENSO

All kinds of Chain—both

WELDED *and* WELDLESS

The American Chain Company, Inc., is the world's largest manufacturer of Welded and Weldless Chains for all purposes. This implies the responsibility of leadership in service and quality of product.

There is quality in every link—quality of metals, materials, tests and inspection. ACCO products are distributed through regular wholesale channels. Regardless of your needs, specify ACCO chain and you will be certain of quality.

AMERICAN CHAIN COMPANY, INC
BRIDGEPORT • CONNECTICUT

Chain, Conveyor and Elevator

(Continued from page 72)

Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Sprocket Chain Co., Detroit.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Drag

American Chain Co., Inc., Bridgeport.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Dredge

American Chain Co., Inc., Bridgeport.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Heating Furnace and Boiler

American Chain Co., Inc., Bridgeport.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The, Pittsburgh, Pa. (Boiler)
Mattatuck Mfg. Co., The, Waterbury, Conn.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain Hoists

(See "Hoists, Chain")

Chain, Hoist

Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Mfg. Co., The, Columbus, Ohio.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland.
Round, David, and Son, Cleveland, Ohio.
Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Jack

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Chain Co., Inc., Bridgeport.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

Chain, Loading

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Michigan Sprocket Chain Co., Detroit.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Log or Binding

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Malleable Iron and Steel Combination

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Marine

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Pipe Hanging

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The, Pittsburgh, Pa.

Chain, Plumbers'

American Chain Co., Inc., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Smith & Egge, Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

Chain, Pocket Wheel

(See "Chain, Block or Pocket Wheel")

Chain, Rafting

(See "Chain, Boom or Rafting")

Chain, Railroad

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Roller

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., Inc., Milwaukee, Wis.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Michigan Sprocket Chain Co., Detroit.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.

Chain, Safety

American Chain Co., Inc., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Corbin Screw Corp., The, New Britain, Conn.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner Seymour Mfg. Co., Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Washburn Co., The, Worcester, Mass.

Chain, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Chain Co., Inc., Bridgeport, Conn.

MORSE ROLLER CHAIN AND SPROCKETS

IF you carry power transmission, sell a chain that has selling points and profits. Morse Roller Chain made in all manufacturers' Standard sizes, but *different* inside. The one chain that is "Improved." Morse distributor policy is RIGHT. Every power user a chain prospect.

Write for information.

MORSE CHAIN CO.
ITHACA, N.Y.

Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Forging Co., Cleveland.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
International Chain & Mfg. Co., York, Pa.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Michigan Sprocket Chain Co., Detroit.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain Shackles and Clevises

(See "Shackles and Clevises, Chain")

Chain, Sling

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Sprocket Wheel

American Chain Co., Inc., Bridgeport, Conn.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Boston Gear Works, Inc., North Quincy, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chain Products Co., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Medart Co., The, St. Louis, Mo.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Sprocket Chain Co., Detroit.
Moline Malleable Iron Co., St. Charles, Ill.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York.
Palmer-Bee Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Pyott Foundry & Machine Co., Chicago, Ill.
Ramsey Chain Co., Inc., Albany, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Steam Shovel

American Chain Co., Inc., Bridgeport.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Marion Steam Shovel Co., Marion, Ohio.
Mey Chain Belt Co., Buffalo, N. Y.
Newhall Chain Forge & Iron Co., New York.

MORSE SILENT CHAIN DRIVES

FOR every distributor who carries Power Transmission Equipment: Know the advantages and profits of selling Morse Silent Chain & Sprockets to your customers. Every customer is a prospect. One well-known jobber says, "The cleanest line we sell." Branches in all principal cities. Write for details of Morse jobber policy.

MORSE CHAIN CO.
ITHACA, N.Y.

Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Round, David, and Son, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Stud Link

American Chain Co., Inc., Bridgeport.
Bradlee & Co., Inc., Philadelphia, Pa.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Manufacturing Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Transmission

Baldwin-Duckworth Chain Corp., Springfield, Mass.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.

Chain, Transmission, Silent

Boston Gear Works, Inc., North Quincy, Mass.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney, Mfg. Co., The, Hartford, Conn.

Chain, Truck

American Chain Co., Inc., Bridgeport, Conn.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
Link-Belt Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Pyrene Manufacturing Co., Newark, N. J.
Taylor, S. G., Chain Co., Hammond, Ind.
Whitney Mfg. Co., The, Hartford, Conn.

Chain, Weldless

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chains, Sash

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The, Pittsburgh, Pa.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

Chains, Wagon

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
International Chain & Mfg. Co., York, Pa.
McKay Co., The, Pittsburgh, Pa.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Taylor, S. G., Chain Co., Hammond, Ind.

Chairs, Factory, Steel

(See "Stools and Chairs, Factory, Steel")

Chasers, Screw Cutting

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.

Checks—Tool, Time and Pay

Joslin, A. D., Mfg. Co., Manistee, Mich.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Chests, Tool, Steel

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Cleveland Wire Spring Co., The, Cleveland.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Kennedy Mfg. Co., Van Wert, Ohio.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Chests, Tool, Suit Case

Gerstner, H., & Sons, Dayton, Ohio.

Chests, Tool, Wood

Economy Manufacturing Co., Philadelphia.
Gerstner, H., & Sons, Dayton, Ohio.
Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.

SELL TOOL CHESTS

Gerstner Tool Chests are standard equipment with machinists and toolmakers everywhere. Free Catalog.

H. GERSTNER & SONS
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Chippers, Pneumatic
(See "Tools, Pneumatic")

Chisel Blanks
Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Marchant, Geo. F., Co., Chicago, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.

Chisels, Blacksmiths'
American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Evansville Tool Work, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Klein-Logan Co., The, Pittsburgh, Pa.
Kraeuter & Co., Inc., Newark, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Stanley Rule & Level Plant, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Box
American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.

Chisels—Brick, Tile, Stone Cutters', Etc.
American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Evansville, Ind.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Mayhew Steel Products, Inc., Shelburne, Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Carpenters'
Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.

Chisels, Calking
(See "Tools, Calking")

Chisels, Chipping, Hand
Bernz, Otto, Co., Inc., Rochester, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Hubbard & Co., Pittsburgh, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Kilborn and Bishop Co., The, New Haven.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Chicago, Ill.

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A Complete Line Including
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ELIZABETH, N. J.

Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Chipping, Pneumatic and Electric Hammer
Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Helwig Mfg. Co., St. Paul, Minn.
Hubbard & Co., Pittsburgh, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Keller, William H., Inc., Grand Haven, Mich.
Kilborn and Bishop Co., The, New Haven, Conn.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Chicago, Ill.
Stanley Electric Division, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Chisels—Cold, Cape, Diamond Point and Round Nose
American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.
Black & Decker Mfg. Co., The, Towson, Md.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hunt, Geo. L. Mfg. Co., Boscobel, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Klein-Logan Co., The, Pittsburgh, Pa.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N.Y. (Cold only)
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Mueller Co., Decatur, Ill.
Peck, Stow & Wilcox Co., The, Southampton, Conn. (Cold only)
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Southington Mfg. Co., Inc., The, Southington, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Syntron Co., Pittsburgh, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vichek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Chisels, Electric Hammer
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, New Britain, Conn.

Chisels, Floor
American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

Chisels, Joint
Cincinnati Tool Co., The, Cincinnati, Ohio.

Chisels, Mortising, Hollow
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Star Bit & Tool Co., Rockford, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Chisels, Plugging
American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.

Chisels, Ripping
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Leetonia Tool Co., The, Leetonia, Ohio.
Manufacturers' Belt Hook Co., Chicago.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

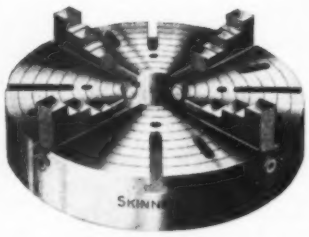
Chisels, Tile
(See "Chisels—Brick, Tile, Stone Cutters', Etc.")

Chisels, Track
Evansville Tool Works, Inc., Evansville, Ind.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Electric Tool Division, New Britain, Conn.

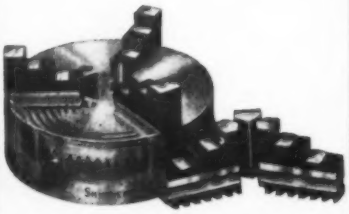
Chisels and Gouges, Turning
Bernz, Otto, Co., Inc., Rochester, N. Y.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Greenlee Bros. & Co., Rockford, Ill.
Leetonia Tool Co., The, Leetonia, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.

Chisels, Wood, All-Steel
Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.

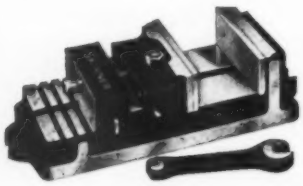
SKINNER CHUCKS



4-Jaw Independent Chuck, Solid Reversible Jaws—Sizes 4 to 36"—Iron or Steel Body—Light, Medium or Heavy Duty. A recognized standard in all high-grade shops.



3-Jaw Universal Geared Scroll Chuck, 2 sets of jaws—Sizes 3 to 18"—Iron or Steel Body—Light, Medium or Heavy Duty. Has great gripping power and recommended for production work.



"The Handy Tool"—Designed for holding work on a drill table. Should be in every machine shop. Made in five sizes—2½", 3½", 4½", 5½" and 7½".

The above are only three items of a large and complete line of Chucks. See directory in this publication for additional types.

For Power Operated Chucks write for Bulletin No. 48-P.

Trade Mark

THE SKINNER CHUCK COMPANY

NEW BRITAIN, CONN. U. S. A.

Crescent Tool Co., Jamestown, New York.
Drew, C., & Co., Kingston, Mass.
Forest City Bit & Tool Co., Rockford, Ill.
Johnson, William, Inc., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Plomb Tool Co., Los Angeles, Calif.
Sandvik Saw & Tool Corp., Minneapolis.

Chucking Lathes

(See "Lathes, Chucking," and "Lathes, Turret")

Chucks, Air

Cushman Chuck Co., The, Hartford, Conn.
Hannifin Mfg. Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.

Chucks, Automatic

Chicago Tool & Engineering Co., Chicago.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Boring and Turning Mill

Gairing Tool Co., The, Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Car Wheel

Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Combination

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Gairing Tool Co., The, Detroit, Mich.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co,, The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Drill and Tap

Almond, T. C., Inc., Ashburnham, Mass.
Brown, R. H., & Co., New Haven, Conn.
Chicago Tool & Engineering Co., Chicago.
Collis Co., The, Clinton, Iowa.
Cushman Chuck Co., The, Hartford, Conn.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass. (Drill chuck only)
North Bros. Mfg. Co., Philadelphia, Pa.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Manufacturing Co., New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Wetscott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Drill, Quick Change Collet

Chicago Tool & Engineering Co., Chicago.
Collis Co., The, Clinton, Iowa.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Chucks, Drill Press

Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Manufacturing Co., Chicago.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Procunier Safety Chuck Co., Chicago, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Standard Tool Co., The, Cleveland, Ohio.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Electrically Operated

Cushman Chuck Co., The, Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

Chucks, Gear Holding

Cushman Chuck Co., The, Hartford, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Geared Scroll

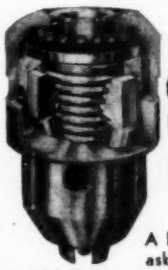
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Millers Falls Co., Greenfield, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Independent

Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Lathe

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.



Ettco

Hand Operated Key Less DRILL CHUCK

A lot of your customers ask for them. A lot more would if you would put the bee on 'em once in awhile.

ETTCO TOOL CO.
BROOKLYN, N. Y.

Chucks, Lever Scroll

Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chucks, Magnetic

Sampson Tool Co., Inc., New York, N. Y.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Chucks, Milling Machine

Brown & Sharpe Mfg. Co., Providence.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Hannifin Manufacturing Co., Chicago.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Van Norman Machine Tool Co., Springfield, Mass.

Chucks and Holders, Nipple

Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Curtis & Curtis Co., The, Bridgeport, Conn.

Chucks, Planer

Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

Chucks, Ring Wheel

Skinner Chuck Co., The, New Britain, Conn.

Chucks, Spring

Brown & Sharpe Mfg. Co., Providence, R. I.

Chucks, Tapping Machine

Chicago Tool & Engineering Co., Chicago.
Ettco Tool Co., Brooklyn, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Universal

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.
Whiton Chuck Co., The, New London, Conn.

Chucks, Wrenchless

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Ettco Tool Co., Brooklyn, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Jacobs Manufacturing Co., The, Hartford, Conn.
Millers Falls Co., Millers Falls, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.
Whiton Chuck Co., The, New London, Conn.

Chutes—Coal, Ore and Concrete

Beaumont, R. H., Co., Philadelphia, Pa.
Canton Foundry & Machine Co., The, Canton, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
General Wheelbarrow Co., The, Cleveland, Ohio. (Coal only)
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Sackett, H. B., Screen & Chute Co., Chicago.
Seaverns, James B., Co., Batavia, Ill.
Truscon Steel Co., Youngstown, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chutes, Spiral

Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Mathews Conveyor Co., Ellwood City, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Clamps, Adjustable

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ruleta Co., Inc., New York, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.
Tessmer Machine & Tool Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Clamps and Brackets, Beam or Girder

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Crane Co., Chicago, Ill.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y. (For pipe hangers)
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Walworth Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Clamps, Belt

Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Manufacturers' Belt Hook Co., Chicago.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg Pa.

Clamps, Bolt, Ship and Dock Builders'

Cincinnati Tool Co., The, Cincinnati, Ohio.
Tallman Manufacturing Co., Shelbyville, Ill.

Clamps, Body

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Clamps, Boiler

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.

CLAMPS

TRADE MARK
Jorgensen
REG U S PAT OFF

Grip at any angle

Handscrews

The most widely used clamps made; the standard in industry. Insist on genuine Jorgensen Handscrews for quality, for jaws that will not split or slip, for handles that will not loosen, for swivel nuts that will not shear. Handscrews are ideal for woodwork, for welding, for holding fine surfaces without marring.

Jorgensen High-Speed BAR CLAMPS
12 Types

Stronger clamps, improved designs that make them handier, faster. Patented Multi-Disc Clutch zipps to position grips at any point on the bar. Standard and newer patterns.

Jorgensen Drop-Forged "C" CLAMPS

Light and heavy patterns, forged from special steel and heat treated. Proportioned for greatest strength. Weights for all needs.

"MARK" Malleable Iron "C" CLAMPS

The Malleable Iron Clamps Known to tool buyers everywhere. The name is recognized as a guarantee of high quality.

Pony (on pipe) CLAMPS

Pony Fittings go on ordinary ¾" pipe to make clamps of any size. A light, strong, low priced clamp with patented Multi-Disc Clutch. Standard equipment in schools and in industry. Extensively used in home work shops (advertised in leading homecraft magazines) and for concrete constructions—for making and holding forms, etc.

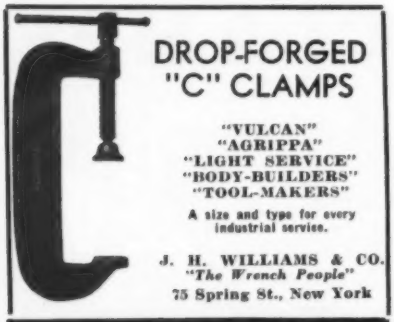
Pony Miniature "C" CLAMPS

Quality tools in miniature with "a thousand uses." Sizes from 1" to 2½" (Depth and opening) Standard shapes and Special designs including deep throat and the new No. 251 (pat.) with machined outside surfaces at 90 degrees. There are volume sales wherever introduced.

• *Write for* • *Clamp Catalog*

showing quality clamps of all types—complete lines that need no "fill-ins". Standard Clamps that give satisfaction and build business.

ADJUSTABLE CLAMP COMPANY
"The Clamp Folks"
413 N. Ashland Ave. Chicago, U. S. A.



WILLIAMS
SUPERIOR DROP-FORGED TOOLS

Clamps, "C"

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Belden Machine Co., The, New Haven, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Newhall Chain Forge & Iron Co., New York, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Williams, J. H., & Co., New York, N. Y.

ARMSTRONG

For Street Addresses of Manufacturers See the "Names and Addresses" Section

Clamps, Cabinet Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., New Haven, Conn.
Sargent & Co., New Haven, Conn.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Cable

Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Lamson & Sessions Co., The, Cleveland.
McMillan's, W. H., Sons, New York, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Starline, Inc., Harvard, Ill.
U. S. Expansion Bolt Co., New York, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.

Clamps, Carriage Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Channon, J. H., Corp., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.

Clamps, Clip, Fuse

Ideal Commutator Dresser Co., Sycamore, Ill.

Clamps, Collar Leak

Dresser, S. R., Mfg. Co., Bradford, Pa.
Skinner, M. B., Co., South Bend, Ind.

Clamps, Column

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Concrete Construction

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Clamps, Eccentric

Batavia Clamp Co., Inc., Batavia, N. Y.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Girder

(See "Clamps and Brackets, Beam or Girder")

Clamps, Guard Rail

American Steel & Wire Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Upson-Walton Co., The, Cleveland, Ohio.

Clamps, Guy and Pole

Coffing Hoist Co., Danville, Ill. (Guy wire clamps)
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Newhall Chain Forge & Iron Co., New York.

Clamps, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
American Stamping Co., Battle Creek, Mich.
Asch & Co, Inc., New York, N. Y.

Sherman Hose Clamps

The World's Standard for Over 40 Years

- *Made of Wrought Brass*
- *Rust Proof*
- *Everlasting*

There is no substitute for the Sherman Clamp. It is without a doubt the best made and excels in 6 vital points.

We carry a very large stock of hose clamps, thus assuring prompt service. Big variety of sizes to fit any hose. . . . Write for booklet.

Sold by Jobbers

H. B. SHERMAN MANUFACTURING CO.
BATTLE CREEK, MICH.

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clamps, Inc., Brooklyn, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Everhot Mfg. Co., Maywood, Ill.
Goodall Rubber Co., Philadelphia, Pa.
Harrisburg Stamping Co., Harrisburg, Pa.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Linde Air Products Co., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Morganmade, Inc., Keene, N. H.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Nunn Brass Works, Rochester, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Wittek Mfg. Co., Chicago, Ill.

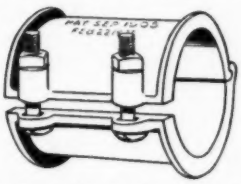
Clamps, Hose, Double

Bastian Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Clamps, Inc., Brooklyn, N. Y.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Ideal Clamp Mfg. Co., Inc., Brooklyn, N. Y.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.

"A Tight Connection All the Time"

TRADEMARK
NOC-OUT
THE HOSE CLAMP
WITH THE THUMBSCREW
Standard equipment hose clamp of the automotive and airplane industry
Your jobber has them
4307 W. 24TH PL. WITTEK
CHICAGO, ILL. MFG. CO.

EMERGENCY PIPE CLAMP



For stopping leaks in pipe lines, instantly, permanently, under any pressure or temperature. Saves pipe replacements . . . steam fitting jobs . . . costly shutdowns. Easily and quickly applied . . . anywhere. Tremendously strong. Inexpensive. Carried in stock by over 400 U. S. mill supply jobbers.

M. B. SKINNER COMPANY, SOUTH BEND, IND.

Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Washburn Co., The, Worcester, Mass.
Wittek Mfg. Co., Chicago, Ill.

Clamps, Hydrant

Detroit Brass & Malleable Works, Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.

Clamps, Machinists'

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Mitre

Batavia Clamp Co., Inc., Batavia, N. Y.

Clamps, Parallel, Machinists' and Toolmakers'

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Pipe, Extension

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Walworth Co., New York, N. Y.

Clamps, Pipe Joint

Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Sacramento Pipe Works, Sacramento.
Skinner, M. B., Co., South Bend, Ind.
Smooth-On Manufacturing Co., Jersey City, N. J.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Clamps, Pipe Line

Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Ellis & Ford Mfg. Co., Detroit, Mich.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Modern Mfg. Co., The, Cleveland, Ohio.
Skinner, M. B., Co., South Bend, Ind.

Clamps, Pipe Repair

Clow, James B., & Sons, Chicago, Ill.
Mueller Co., Decatur, Ill.
Skinner, M. B., Co., South Bend, Ind.
Smooth-On Manufacturing Co., Jersey City, N. J.
Yarnall-Waring Co., Philadelphia, Pa.

Clamps, Quick Acting

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Rule

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Clamps, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Clamps, Sheet Metal Handling

Never Slip Safety Clamp Co., New York.

Clamps, Splicing

Clamps, Inc., Brooklyn, N. Y.
Klein, M., & Sons, Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.

Clamps, Steel Bar

Adjustable Clamp Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Batavia Clamp Co., Inc., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Strap

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

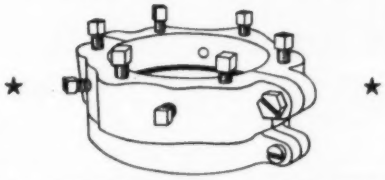
Clamps, Vise

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland.
North Bros. Mfg. Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Wire Rope

(See "Clips and Clamps, Wire Rope")

SKINNER PIPE JOINT CLAMP



For permanently stopping leaks at joints where pipe is screwed into fitting . . . saves cost of tearing out and renewing . . . prevents costly shutdowns. Gasket is forced directly into threads. No pressure too high. A standard repair for 35 years. Stocked by jobbers ½" to 12" pipe sizes.

M. B. SKINNER COMPANY, SOUTH BEND, IND.

Flexible Closet Cleaners

Closet Cleaners

Allan J. Coleman
116 W. Illinois St.
Chicago
Manufacturer

4 Grades
All Lengths

See Our Catalogue

Clamps, Wood Bar

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Clamps, Woodworkers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co, Poughkeepsie, N. Y.

Clay, Fire

(See "Fire Clay")

Cleaners, Boiler Flue and Tube

Advance Packing & Supply Co., Chicago.
Allen & Billmyre Co., Inc., New York.
Blue Seal Chemical Co., Roselle, N. J.
Chicago Engineer Supply Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Murray, William H., Richmond, Hill, New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Self Cleaning Strainer Co., Chicago, Ill.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Closet

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Cleaners, Condenser Tube

Coleman, Allan J., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Hollow Center Packing Co., Cleveland, O.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, File

Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Cleaners, Flue

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo.
Doolittle, L. G., Binghamton, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Mall Tool Co., Chicago, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Wilson, Thomas C., Inc., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Hand

(See "Soap and Cleaners, Hand")

Cleaners, Metal

American Solder & Flux Co., Philadelphia.
Baum's Castorine Co., Rome, N. Y.
Blue Seal Chemical Co., Roselle Park, N. J.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Grady Mfg. Co., The, Long Island City, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Quigley Co., Inc., New York, N. Y.

Cleaners, Pipe Coil

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Ford, J. B., Co., The, Wyandotte, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Standard Appliance Corp., The, Dayton, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Cleaners, Sewer and Drain Pipe, Chemical

Allen, L. B., Inc., Chicago, Ill.
Coleman, Allan J., Chicago, Ill.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Flash Chemical Co., Cambridge, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Pacific Chemical Co., Los Angeles, Calif.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Cleaners, Sewer and Drain Pipe, Mechanical

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rapid Spring Co., The, Pittsburgh, Pa.
Standard Appliance Corp., The, Dayton, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

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Bolt Clippers

Powerful, portable, two-hand cutting tools. One quick cut on bolts, rod, wire or chain—saves time, saves labor. Used in production and in maintenance, repairs, construction and dismantling. Special jaws for splitting nuts which cannot be removed with wrench.

A size and type of jaw for every requirement. Sold by supply houses and jobbers everywhere. Write for descriptive folder.

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EVERETT · MASS

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Allen & Billmyre Co., Inc., New York.
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Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Ideal Commutators Dresser Co., Sycamore, Ill.
Metal Specialties Mfg. Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Cleaners, Vacuum, for Industrial Plants

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Baker-Hansen Mfg. Co., Alameda, Calif.
Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

Cleaners, Window

(See "Squeegees")

Cleaning Machines for Metal Parts

(See "Machines, Cleaning, for Metal Parts")

Clevises, Chain

(See "Shackles and Clevises, Chain")

Clippers—Bolt, Rivet and Wire

Belden Machine Co., The, New Haven, Conn.
Carolus Manufacturing Co., Sterling, Ill.
Forged Steel Products Co., Newport, Pa.
Porter, H. K., Inc., Everett, Mass.
Roberts Manufacturing Co., Everett, Mass.

Clips, Rail

Bethlehem Steel Co., Bethlehem, Pa.

WIRE ROPE CLIPS

"DREDNAUT"
DROP FORGED
HOT GALVANIZED
(ILLUSTRATED)
OR THE
"U-W" WIRE
ROPE CLIPS

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The Upson-Walton Co.
1306 WEST 11TH ST., CLEVELAND, OHIO
Established 1871

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Clamps, Inc., Brooklyn, N. Y.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The Cleveland, O.
Marion Malleable Iron Works, Marion, Ind.
Mockbee, C. M., Co., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co., New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
U. S. Expansion Bolt Co., New York, N. Y.
Wickwire Spencer Steel Co., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Clocks, Engine and Furnace Room

Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Thomas, Seth, Clock Co., Thomaston, Conn.
Tillery's Little Janitor Clock Co., Newark, N. J.

Clocks, Watchmen's

Chicago Watchman's Clock Co., Chicago.
Detex Watchclock Corp., Chicago, Ill.
Simplex Time Recorder Co., Gardner, Mass.

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(See "Door Openers and Closers")

Cloth, Asbestos

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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
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WASTE LINE CLEANER

Feeds waste rod in with pump stroke, revolving rod at same time. Reels out when done. Music wire steel rod wound on reel in tool. Clears stoppages otherwise hopeless. Amazingly effective. Hundreds nationally known users. All sizes. Standard Appliance Corp., 206 Hickory St., Dayton, Ohio.

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★ Bolt Clipper ★

The new tool—with cutting head set on swivel joint so that it can be used with handles at any angle. Full power regardless of position. Enables operator to get into difficult corners—and around the corners. Cuts bolts, rods, rivets and wires. Write for descriptive circular.

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Tool is no bigger than the flat of your hand but has tremendous cutting power. Operates with ratchet wrench. Fits tool kit. Easy to use in tight places. Gets into channels of auto frames, etc. Cuts bolts, cuts rods, splits nuts.

Write for descriptive circular.

H. K. PORTER, INC
EVERETT MASS

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Rhopac Products Corp., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.

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Hettrick Mfg. Co., The, Toledo, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Upson-Walton Co., The, Cleveland, Ohio.

Cloth, Emery

(See "Paper and Cloth—Sand, Emery, Garnet and Flint")

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Buffalo Wire Works Co., Inc., Buffalo.
Cambridge Wire Cloth Co., Cambridge, Maryland.
Chase Brass & Copper Co., Waterbury, Conn.
Link-Belt Co. (Pacific Division), San Francisco, Calif.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Mark, Clayton & Co., Chicago, Ill.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Northwestern Barb Wire Co., Sterling, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Clothing, Oiled

Goodall Rubber Co., Philadelphia, Pa.

Clothing, Safety, Asbestos

(See "Safety Clothing, Asbestos")

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BRATTICE CLOTH

Non-Inflammable or Airtight & Waterproof

The heavy jute yarns, closely woven, combined with our special fireproofing process assure jobbers of U-W Brattice Cloth of a line equal to any on the market.

The airtight and waterproof brattice cloths are furnished with either a jute or cotton duck base.

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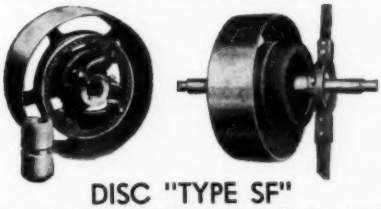
Established 1871
1306 WEST 11TH ST., CLEVELAND, O.

Edgemont Friction CLUTCHES

"YOU CAN'T GO WRONG . . . THEY ARE SERVICE TESTED"

EXPANDING "TYPE B"

The standard clutch for counter-shaft, line-shaft and other moderate speed applications.



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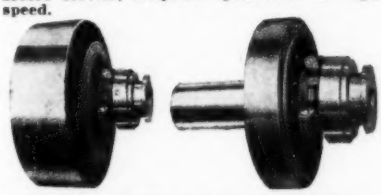
A superior type disc clutch built to stand severe service, frequent operation and high speed.



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The Edgemont Machine Co.
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Robinson, D., & Son, Detroit, Mich.
Sanitary Washed Wiper Co., Indianapolis.
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Star Sanitary Rag Co., Chicago, Ill.
Sweetland Waste Co., Inc., Canton, Mass.
Wiping Materials, Inc., St. Louis, Mo.
Wisconsin Waste & Wiper Co., Milwaukee.

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Excelsior Tool and Machine Co., East St. Louis, Ill.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Hunter, James, Machine Co., North Adams, Mass.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Link-Belt Co., Chicago, Ill.
Link-Belt Co. (Pacific Division), San Francisco, Calif.
Mason, Volney W., & Co., Boston, Mass.
O. K. Clutch & Machinery Co., Columbia, Pa.
Schultz, A. L., & Son, Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
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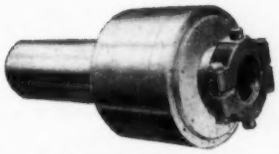
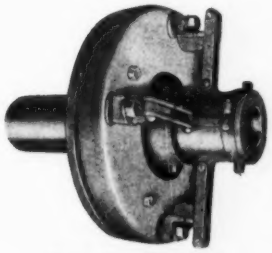
Kinney
REG. U.S. PAT. OFF.

Friction Clutches

Cut-off or Sleeve Type



Fully Enclosed Clutches.
Single Point Adjusting from 1 to 200 H.P. per 100 R.P.M.



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From 2 to 600 H.P. per 100 R.P.M.

High Speed or Slow Speed Clutches to fit the installation

Sleeves — Full ball bearing, bronze bushed, or capillary wick oiled cast iron for split or solid pulley, gear, or sprocket.

Friction Surfaces — Metal to metal lubricated or dry burn-proof asbestos to suit the work.

Quick positive or slow easy picking up of the load as required.

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KINNEY Mfg. Co.
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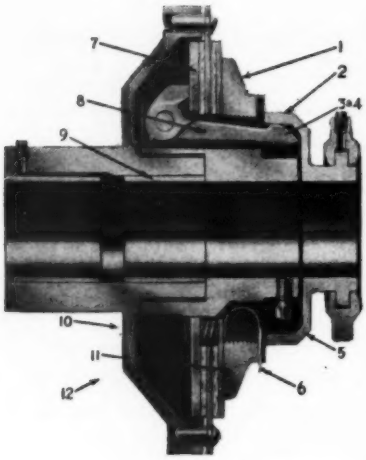
CONWAY Disc Clutch

Patented U. S. A. & Canada

Features that sell this clutch:

1. Enclosure
2. Safety
3. Underslung Levers
4. Ease of Engagement
5. Appearance
6. Ease of Adjustment
7. Steel Discs and Asbestos Facings
8. Centripetal Action
9. Full Length Bearing
10. Balance
11. Simplicity
12. Large Power Capacity



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Fairbanks, Morse & Co., Chicago, Ill.
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Filer & Stowell Co., The, Milwaukee, Wis.
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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
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List, E. J., Mfg. Co., Havana, Ill.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Miley, L. J., Co., Inc., Chicago, Ill.
Moore-Master Mfg. Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
O. K. Clutch & Machinery Co., Columbia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Reeves Pulley Co., Columbus, Ind.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Schultz, A. L., & Son, Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Twin Disc Clutch Co., Racine, Wis.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co, Chicago, Ill.
Western Engineering & Mfg. Co., Chicago.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Hunter, James, Machine Co., North Adams, Mass.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mason, Volney W., & Co., Boston, Mass.
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Moore-Master Mfg. Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
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Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Engineering & Mfg. Co., Chicago.
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Clutches, Friction, Countershaft

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Brown Engineering Co., Reading, Pa.
Chicago Pulley & Shafting Co., Chicago.
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Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
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Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
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Rockford Drilling Machine Co., Rockford, Ill.
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Stephens-Adamson Mfg. Co., Aurora, Ill.
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Weller Mfg. Co., Chicago, Ill.
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Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
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Kinney Manufacturing Co., Boston, Mass.
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Moore-Master Mfg. Co., Chicago, Ill.
Rockford Drilling Machine Co., Rockford, Ill.
Twin Disc Clutch Co., Racine, Wis.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Clutches, Jaw

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American Hoist & Derrick Co., St. Paul.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
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Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Clutches, Magnetic

Cutler-Hammer, Inc., Milwaukee, Wis.
Magnetic Manufacturing Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Coating, Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.
Carter Paint Co., Liberty, Ind.
Green, A. P., Fire Brick Co., Mexico, Mo.
Menaugh & Co., Chicago, Ill.
Vita-Var Corp., Newark, N. J.

Coating, Gear and Pinion

(See "Grease and Coating, Gear and Pinion")

Coating, Pipe

American Asphalt Paint Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
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Menaugh & Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Vita-Var Corp., Newark, N. J.

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American Asphalt Paint Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Carter Paint Co., Liberty, Ind.
Curry Brothers Oil Co., Boston, Mass.
Hays Manufacturing Co., Erie, Pa.
Horn, A. C., Co., Long Island City, N. Y.
Lyon, Conklin & Co., Inc., Baltimore, Md.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Sherwin-Williams Co., Cleveland, Ohio.
Vita-Var Corp., Newark, N. J.

Cocks, Acid

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Dallett Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
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National Lead Co., New York, N. Y.
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Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
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Cocks, Air

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Detroit Brass & Malleable Works, Detroit, Mich.
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Essex Brass Corp., Detroit, Mich.
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Mueller Co., Decatur, Ill.
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Penberthy Injector Co., Detroit, Mich.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks and Faucets, Barrel

(See "Faucets and Cocks, Barrel")

Cocks, Blow-off

American Chain Co., Inc., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Tessmer Machine & Tool Co., Detroit.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

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Detroit Brass & Malleable Works, Detroit, Mich.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Walworth Co., New York, N. Y.

Cocks or Stops, Corporation and Waterworks

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Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks or Stops, Curb

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Cylinder

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Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Cocks, Dial

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Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.

Cocks, Gas

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Michigan Smelting & Refining Co., Division of Bohn Aluminum & Brass Corp., Detroit, Mich.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Gas, High Pressure

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
National Transit Pump & Machine Co., Oil City, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks and Valves, Gas, Natural

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Cocks, Gas Meter

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Gas Service

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Gasoline

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Williams, D. T., Valve Co., The, Cincinnati.
Walworth Co., New York, N. Y.

Cocks, Gauge

Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York.

Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams Gauge Co., The, N. S, Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Compression

Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Self-closing

Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Hose

American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, Hydrant

Atlas Brass Foundry Co., The, Columbus, Ohio.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Hydraulic

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks, Indicator

Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Iron

American Chain Co., Inc., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N.Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth, Co., New York, N. Y.

Cocks and Faucets, Lock

Belfield, H., & Co., Philadelphia, Pa.
Cordley & Hayes, New York, N. Y.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, and Valves, Mixing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detroit Brass & Malleable Works, Detroit.
Empire Brass Mfg. Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Walworth Co., New York, N. Y.

Cocks, Oil

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit.
Detroit Lubricator Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Transit Pump & Machine Co., Oil City, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks and Faucets, Oil Wagon and Storage Tank

Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rauch Manufacturing Co., The, Galena, Kans.
Rockford Brass Works, Rockford, Ill.

Cocks, Pet

Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Binks Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Plug

American Chain Co., Inc., New York, N. Y.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Relief

Binks Manufacturing Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
General Brass Co., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Roberts Brass Mfg. Co., The, Detroit.
Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

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Cocks and Faucets, Sill, Compression

Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Empire Brass Mfg. Co., The, Cleveland.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersburg Brass Co., The, Cleveland, O.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, Steam

American Chain Co., Inc., New York, N. Y.
American Injector Co., Detroit, Mich.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Frederick Iron & Steel Co., The, Frederick, Md.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Co., Coraopolis, Pa.
Huyette, Paul B., Co., Inc., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Steam Gauge

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Sargent Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Stop, and Stop and Waste, Compression

American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Brass Co., Detroit, Michigan.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Empire Brass Mfg. Co., The, Cleveland.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Stop, and Stop and Waste, Ground Key

American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Stop, Self-Closing

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Cocks, Three-Way

American Chain Co., Inc., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Coils, Pipe

(See "Bends and Coils, Pipe")

Collars, Shaft

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa. (Solid and split)
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Rock Island Mfg. Co., Rock Island, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Collectors, Exhausters (or Blower System) for Shavings and Dust

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Blower Corp., Detroit, Mich.
American Foundry Equipment Co., Mishawaka, Ind.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dallet Co., The, Philadelphia, Pa.
Electric Blower Co., Boston, Mass.
Garden City Fan Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.

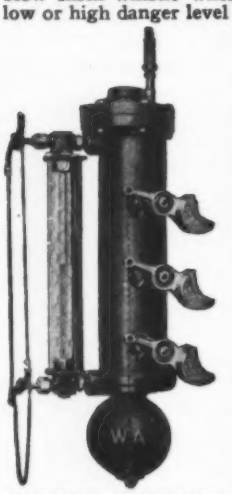
Collets

Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Planer Co., The, Cincinnati, O.
Collis Co., The, Clinton, Iowa.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hannifin Manufacturing Co., Chicago, Ill.
Moseley Lathe Co., The, Elgin, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Sutton Tool Co., Detroit, Mich.
Union Twist Drill Co., Athol, Mass. (Milling machines)

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

Alarm Water Columns

Wright-Austin Alarm Water Columns blow shrill whistle when water reaches low or high danger level in boiler. Made for all sizes of boilers.



TRYCOCK

The "Crescent" Trycock is absolutely non-leaking. Double life due to reversible valve and seat of special metal and easily accessible. Suitable for all Power Boilers and Water Columns.

WATER GAUGE

When a glass breaks on this Water Gauge, one pull of the chain shuts off instantly both steam and water. In replacing new glass its special "Quick Change" feature is a time and money saver. Fits all Boilers and Water Columns.

KLEERVU PROTECTOR—Appealing to those responsible for safety, our "Kleervu" Gauge Glass Protector for Water Gauges on boilers, tanks, etc., prevents injury to operators from flying pieces of exploding gauge glasses, by confining all broken glass within the Protector.

WRIGHT AUSTIN

316 West Woodbridge

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Columns, Water

Bordo, L. J., Co., Inc., Glenside, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Penberthy Injector Co., Detroit, Mich.
Sargent Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Columns, Water, Safety

Bordo, L. J., Co., Inc., Glenside, Pa.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Penberthy Injector Co., Detroit, Mich.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Commutator Maintenance Equipment

Ideal Commutator Dresser Co., Sycamore, Ill.

Compounds, Anti-Freezing, for Fire Extinguishers and Buckets

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wills Products Co., The, New York, N. Y.

Compounds, Boiler

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Sand Banum Co., Inc., New York, N. Y.
Arrow Boiler Compound Co., St. Louis, Mo.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Blue Seal Chemical Co., Roselle, N. J.
Crane Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Imperial Floor Co., Inc., Rochester, N. Y.
Johns-Manville, New York.
Master Lubricants Co., Philadelphia, Pa.
Messmer Brass Co., St. Louis, Mo.
Pacific Chemical Co., Los Angeles, Calif.
Sero Specialty Co., Cleveland, Ohio.
Smooth-On Manufacturing Co., Jersey City, N. J.
United States Graphite Co., Saginaw, Mich.

Compounds, Boiler and Radiator Sealing

Baum's Castorine Co., Rome, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Key Co., East St. Louis, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.

Compounds and Fluxes, Brazing

Air Reduction Sales Co., New York, N. Y.
Anti-Borax Compound Co., Fort Wayne, Ind.
Atkins, E. C., & Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Cortland Welding Compound Co., Cortland, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dockson, C. H., Co., Detroit, Mich.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Handy & Harman, New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Compounds, Buffing and Polishing

Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Matchless Metal Polish Co., The, Chicago.
Quigley Co., Inc., New York, N. Y.

Compounds, Case Hardening and Tempering

Anti-Borax Compound Co., Fort Wayne, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Sauereisen Cements Co., Pittsburgh, Pa.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Lubricants, Commutator

Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Harris, A. W., Oil Co., Providence, R. I.
Metalene Chemical Co., The, Cleveland, O.
Sauereisen Cements Co., Pittsburgh, Pa.

IDEAL COMMUTATOR AND RING RESURFACING STONES

175 Styles 8 Grades

Ideal Commutator and Slip Ring Resurfacers are the accepted standard in over 17,000 power plants. By far—the best, quickest and most economical way to maintain commutators and rings. **Always high quality, absolute uniformity.** Non-copper collecting. Cut quickly, wear down slowly.
10 day free trial. Write for prices and literature.

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1020 Park Ave. Sycamore, Ill.

Standard Oil Co., of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Oils, Core

Cook's, Adam, Sons, Inc., Linden, N. J.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Oils—Cutting, Drilling, Threading, Milling, Metal Drawing

American Foundry Equipment Co., Mishawaka, Ind.
Armstrong Manufacturing Co., Bridgeport, Conn.
Atkins, E. C., & Co., Indianapolis, Ind.
Baum's Castorine Co., Rome, N. Y.
Beaver Pipe Tools, Inc., Warren, Ohio.
Cook's, Adam, Sons, Inc., Linden, N. J.
Curry Brothers Oil Co., Boston, Mass.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Lubriplate Corp., New York, N. Y.
Magie Bros., Chicago, Ill.
Master Lubricants Co., Philadelphia, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Ridge Tool Co., The, Elyria, Ohio.
Sero Specialty Co., Cleveland, Ohio.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Sutton, C. N., Chemical Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
White & Bagley Co., The, Worcester, Mass.

Compounds, Elevator

Cook's, Adam, Sons, Inc., Linden, N. J.
Lubron Co., The, Everett, Mass.

Compounds, Grinding

Baum's Castorine Co., Rome, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dallett Co., The, Philadelphia, Pa.
Franklin Oil & Gas Co., The, Bedford, O.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass. (Also lapping compounds)
Master Lubricants Co., Philadelphia, Pa.
Pittsburgh Crushed Steel Co., Pittsburgh.
Stuart, D. A., Oil Co., Chicago, Ill.
White & Bagley Co., The, Worcester, Mass.

Compounds, Pipe Joint

(See "Cement or Compound, Pipe Joint")

Compounds, Rubberizing and Waterproofing

Glover, Manson, Stoughton, Mass.
Self-Vulcanizing Rubber Co., Inc., Chicago, Ill.

Compounds, Sealing

Fostoria Pressed Steel Corp., The, Fostoria, Ohio.
Quigley Co., Inc., New York, N. Y.
Smooth-On Manufacturing Co., Jersey City, N. J.

Compounds, Sewer Pipe

(See "Cement or Compound, Sewer Pipe")

Compounds, Valve Grinding

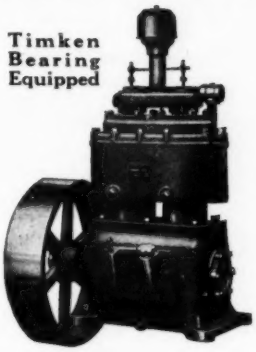
Baum's Castorine Co., Rome, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Fisher Governor Co., The, Marshalltown, Iowa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minnesota Mining & Mfg. Co., St. Paul, Minn.

Compounds and Paints, Waterproofing

American Asphalt Paint Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Carter Paint Co., Liberty, Ind.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.

CURTIS MODEL "C"
COMPRESSORS

Timken Bearing Equipped



CARBON-FREE VALVES

3 to 50 H. P. Water-cooled. Equipped with Curtis centro-ring oiling system. Also complete motor or engine driven outfits, belt or direct drive.

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COMPRESSORS—AIR HOISTS—
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STOPS LEAKS

Eliminates Losses of
Steam. Air. Gas. Oil. Water

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THE FOSTORIA PRESSED STEEL CORP.
Fostoria, Ohio

TITE fostoria SEAL

Curry Brothers Oil Co., Boston, Mass.
Ensign Products Co., Cleveland, Ohio.
Goodrich, B. F., Co., The, Akron, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Johns-Manville, New York.
Menaugh & Co., Chicago, Ill.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Pittsburgh Crushed Steel Co., Pittsburgh.
Protection Products Mfg. Co., Detroit, Mich.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Compounds, Water Softening

(See "Compounds, Boiler")

Compounds or Flux, Welding

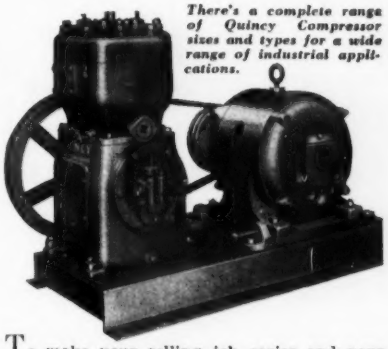
(See "Flux, Foundry and Welding")

Compressors, Air

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Chain Co., Inc., New York, N. Y.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Burning Brand Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton.
Dumore Co., The, Racine, Wis.
Electric Sprayit Co., The, Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Gardner-Denver Co., Quincy, Ill.
Gast Mfg. Co., The, Bridgman, Mich.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Hudson-Sharp Machine Co., Green Bay, Wis.
Imperial Brass Manufacturing Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Machine Shop Equipment Co., Grove City, Pa.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Improved Gas Engine Co., Springfield, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago.
National Transit Pump & Machine Co., Oil City, Pa.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Saylor-Beall Manufacturing Co., Detroit.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Air, for Garages

American Chain Co., Bridgeport, Conn.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
Gardner-Denver Co., Quincy, Ill.
H. D. B. Corporation, Chicago, Ill.



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To make your selling job easier and your customer's satisfaction more complete, Quincy Compressors include these features:

1. **Timken Tapered Roller Bearings**
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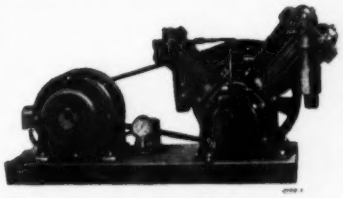
Submit specifications for prices and discounts. Factory trained men available for engineering service. QUINCY COMPRESSOR CO., Quincy, Ill. Branches: New York and Chicago.

QUINCY Compressors

COMPRESSORS



Two types of units, one air-cooled, the other water-cooled, to fill every need.

AIR-COOLED UNITS
1/4 to 50 horsepower.
1.2 to 310 cu. ft. per min.
Pressures 5 to 1000 lbs.
Vacuum pumps.

WATER-COOLED UNITS
10 to 125 horsepower
5 to 150 lbs.
55 to 1990 cu. ft. per min.

Ingersoll-Rand
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DAYTON AIR COMPRESSORS

represent

HALF A CENTURY OF PROGRESS

in

Design and Performance

Sizes: 1 to 50 cu. ft.

MODEL G-8—Illustrated—8¼ cu. ft. Especially designed for Super-Service Stations.

The Dayton Air Compressor Co.

Valley & Air DAYTON, OHIO

Hartford Machine Screw Co., Hartford, Conn.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Machine Shop Equipment Co., Grove City, Pa.
National Brake & Electric Co., Milwaukee.
Paasche Airbrush Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.

Compressors, Air, Hydraulic

Binks Manufacturing Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Ingersoll-Rand Co., New York, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Compressors, Air, Portable

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
Dunmore Co., The, Racine, Wis.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Kellogg Manufacturing Co., Rochester, N. Y.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Mott Sand Blast Mfg. Co., Inc., Chicago.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.
Wright Mfg. Div. of American Chain Co., York, Pa.

Compressors, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Ingersoll-Rand Co., New York, N. Y.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Pneumatic Tool Co., New York.
Dayton Air Compressor Co., The, Dayton.
De Laval Steam Turbine Co., Trenton, N. J.
Gardner-Denver Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Miller Improved Gas Engine Co., Springfield, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Condensation Outfits

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Decatur Pump Co., Decatur, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Worthington Pump & Machinery Corp., Harrison, N. J.

Condensers, Jet, Surface and Barometric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bartlett Hayward Co., The Baltimore, Md.
Chicago Pneumatic Tool Co., New York.
Filer & Stowell Co., The, Milwaukee, Wis.
Ingersoll-Rand Co., New York, N. Y.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump & Machinery Corp., Harrison, N. J.

Conduit, Underground Steam Line

Badger, E. B., & Sons Co., Boston, Mass.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Steel & Tubes, Inc., (Subsidiary of Republic Steel Corp.), Cleveland, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Connections, Gas Meter

Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.

Connections, Pipe Line

Barco Manufacturing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National Lead Co., New York, N. Y.
Reading Steel Casting Co., Bridgeport, Conn.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sacramento Pipe Works, Sacramento, Cal.
Taylor Forge & Pipe Works, Chicago, Ill.

Connections, Pipe, Offset Reducing

Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.

Connections, Union

(See "Unions")

Connections, Water Meter

Crane Co., Chicago, Ill.
Hersey Manufacturing Co., Boston, Mass.
Mueller Co., Decatur, Ill.

Connectors, Cable, Detachable

Dallet Co., The, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.

Connectors, Wire

Ideal Commutator Dresser Co., Sycamore, Ill.

Control, Oil, Constant Level

Lunkenheimer Co., The, Cincinnati, Ohio.

Controllers, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Huhn Manufacturing Co., Bronx, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Philadelphia Gear Works, Philadelphia.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Controllers, Fan Engine

(See "Regulators, Controllers or Governors—Fan Engine")

Controllers, Power Pump

(See "Governors or Regulators, Pump")

Controllers, Water Level

(See "Regulators, Water Level")

Controls, Draft or Combustion

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Conveyors, Apron

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mathews Conveyor Co., Ellwood City, Pa.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Wire Cloth Co., Detroit, Mich.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Conveyors, Belt

Acme Steel Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.

Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee.
Gandy Belting Co., Grand Rapids, Mich.
Godfrey Conveyor Co., Elkhart, Ind.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manufacturers Equipment Co., The, Dayton, Ohio.
Mathews Conveyor Co., Ellwood City, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Mountville Mfg. Co., Mountville, Pa.
New York Beting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Belting Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Bucket

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Godfrey Conveyor Co., Elkhart, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Manufacturing Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors—Coal, Gravel and Sand

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Godfrey Conveyor Co., Elkhart, Ind.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Huron Industries, Inc., Alpena, Mich.
Industrial Brownhoist Corp., Cleveland.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Gravity

Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Lumber and Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Memphis Machine Works, Memphis, Tenn.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Merchandise

Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Palmer-Bee Co., Detroit, Mich.
Starline, Inc., Harvard, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Overhead

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., New Castle, Ind.
Wright Mfg. Div. of American Chain Co., York, Pa.

Conveyors, Portable, for Loading Cars and Stacking

Cardwell Machine Co., The, Richmond, Va.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Economy Engineering Co., Chicago, Ill.
Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Palmer-Bee Co., Detroit, Mich.
Republic Rubber Co., The, Cincinnati, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
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Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Palmer-Bee Co., Detroit, Mich.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Steel Belt

Acme Steel Co., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
R. S. Products Corp., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York, N. Y.

Conveyors, Steel Pan

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
Palmer-Bee Co., Detroit, Mich.
R. S. Products Corp., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Wire Cable

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
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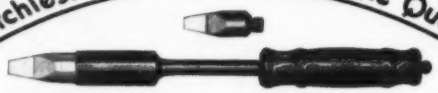
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Brunswick-Kroeschell Co., New Brunswick, N. J.
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Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Scaife, W. B., & Sons Co., Oakmont, Pa.

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American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Federated Metals Corp., New York, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
National Copper & Smelting Co., Cleveland.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Coppers and Irons, Soldering

Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Dunton, M. W., Co., The, Providence, R. I.
Electric Soldering Iron Co., Inc., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle, N. J.
Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, New York.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Merchant & Evans Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Stanley Rule & Level Plant, New Britain, Conn.
Turner Brass Works, The, Sycamore, Ill.
Vulcan Electric Heater Corp., Lynn, Mass.

Coppers, Soldering, and Blow Torch Combined

Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.

Cord, Wick and Yarn—Asbestos

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Rhopac Products Corp., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc, Manheim, Pa.

Cord, Electric Tool

American Steel & Wire Co., Chicago, Ill.
Euclid Rubber Co., Cleveland, Ohio.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Royal Electric Co., Inc., Avon, Mass.
Simplex Wire & Cable Co., Boston, Mass.
Stanley Electric Tool Division, New Britain, Conn.

Cordage, Braided

Massasoit Mfg. Co., Fall River, Mass.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Cores and Cases, Flexible Shaft

Stow Mfg. Co., Inc., Binghamton, N. Y.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Cotter Pins and Spring Keys

American Chain Co., Inc., Bridgeport, Conn.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Eaton Manufacturing Co., Massillon, Ohio.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hindley Manufacturing Co., Valley Falls, R. I.
Hobbs Manufacturing Co., Worcester, Mass.
Lamson & Sessions Co., The, Cleveland, O.
Leard, William, Co., Inc., The, New Brighton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Smith, F. P., & Co., Sharon Hill, Pa.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Wire Products Co., St. Louis, Mo.

Cotton, Calking, Spun

Heller, W. C., & Co., Montpelier, Ohio.
Massasoit Mfg. Co., Fall River, Mass.

Counters, Revolution

Durant Mfg. Co., Milwaukee, Wis.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Veeder-Root, Inc., Hartford, Conn.

Counterbores

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barnes Drill Co., Rockford, Ill.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Production Tool Co. of America, Detroit.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Countershafts

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

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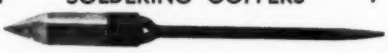
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Countersinks

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American Swiss File & Tool Co., Elizabeth, N. J.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass. (Auto brake lining countersinks)
Whitman and Barnes, Inc., Detroit, Mich.

Counting Machines

(See "Machines, Counting)

Couplings, Casing

Crane Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Couplings, Copper Tube

Chase Brass & Copper Co., Waterbury, Conn.
Essex Brass Corp., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Prier Brass Mfg. Co., Kansas City, Mo.

Couplings, for Flexible Metal Hose

Atlantic Metal Hose Co., Inc., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Goodall Rubber Co., Philadelphia, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Hunt, C. B., & Son, Salem, Ohio.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Republic Rubber Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Simplex Spray Equipment Co., Chicago, Ill.

Couplings, Gas and Oil Line

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Hunt, C. B., & Son, Salem, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Meyer Coupling Co., Inc., Los Angeles.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, O.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Gasoline Pipe

(See "Fittings and Couplings, Gasoline Pipe")

Couplings, Hose, Air and Gas

Acheson Manufacturing Co., Rankin, Pa.
Alemite Corporation, Chicago, Ill.
Allen, W. D., Mfg. Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods, Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edwards, H. D., & Co., Detroit, Mich.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kelly Machinery Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Rauch Manufacturing Co., The, Galena, Kan.
Republic Rubber Co., The, Youngstown, O.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Couplings, Hose, Rotary

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Dixon Valve & Coupling Co., Philadelphia, Pa.

Couplings, Hose, Steam

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
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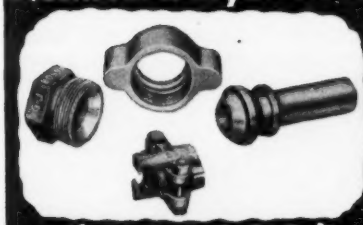

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FEMALE COUPLING

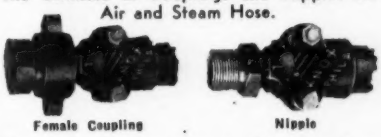
This washerless coupling which is suited for any service has a finished copper seat inserted in the spud that effects a perfect seal against the head of the stem, without the effort needed on a washer type coupling. Longer life results. Delays caused by leaking, lost or worn out washers are eliminated.

Carried in stock by leading Rubber Manufacturers and Jobbers.

IF IT'S A "DIXON" PRODUCT IT'S DEPENDABLE

DIXON
VALVE & COUPLING CO.
PHILADELPHIA
Los Angeles Houston

KNOX
Valves - Couplings - Nipples - Clamps - Menders
The Ultimate in Couplings and Nipples for Air and Steam Hose.



Female Coupling Nipple

The Clamp design prevents the Hose from bending sharply over the end of the Stem, a feature exclusive with KNOX and of paramount importance to the life of any Hose.

CATALOGUE ON REQUEST.

Knox Manufacturing Co.
819 Cherry St., Philadelphia

Joy Automatic Air Hose Coupler

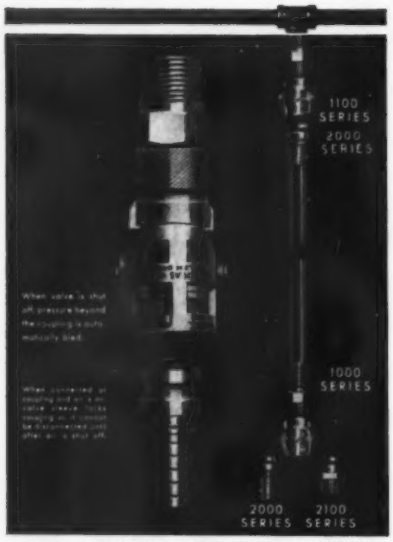
A SIMPLE TWIST OF THE WRIST DOES THE TRICK

H. D. EDWARDS & CO. - DETROIT, MICH.

Quick-As-Wink

VALVE COUPLING

The ONLY quick acting coupling that also controls the air.



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Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Thermoid Rubber Co., Trenton, N. J.
Walworth Co., New York, N. Y.

Couplings, Hose, Water

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Asch & Co., Inc., New York, N. Y.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Independent Pneumatic Tool Co., Chicago.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Keystone Brass & Rubber Co., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Walworth Co., New York, N. Y.

Couplings, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Nunn Brass Works, Rochester, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Couplings, Pipe, Cast Iron

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhn Bros. Co., Dayton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Couplings, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Chicago Tubing & Braiding Co., Maywood, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Meyer Coupling Co., Inc., Los Angeles.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Couplings, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell, Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.

Couplings, Pipe, Reducing

Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Couplings, Pipe Repair

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Sacramento Pipe Works, Sacramento, Cal.

Couplings, Pipe, Wrought Iron and Steel

Bethlehem Steel Co., Bethlehem, Pa.
Byers, A. M., Co., Pittsburgh, Pa.
Camden Forge Co., Camden, N. J.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kleinman, Russell F., Philadelphia, Pa.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn. (Steel only)
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Wheeling Machine Products Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Pump Rod

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Range Boiler

(See "Fittings, Range Boiler")

Couplings, Rod, Malleable

Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Mark, Clayton, & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Turn to the "Trade Name Index" for trade names which are not the same as the company's name

Couplings, Shaft, Compression

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitz Water Wheel Co., Hanover, Pa.
Foote Bros. Gear & Machine Co., Chicago.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Cut-off and Friction Clutch

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Conway Clutch Co., The, Cincinnati, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., St. Louis, Mo.
Moore & White Co., The, Philadelphia, Pa.
Perkins Marine Lamp Corp., Brooklyn.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Engineering & Mfg. Co., Chicago.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Flange or Plate

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Canton Foundry & Machine Co., The, Canton, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
General Electric Co., Schenectady, N. Y.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Hoppes Water Wheel Co., Springfield, O.
Huron Industries, Inc., Alpena, Mich.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Pyott Foundry & Machine Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.

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America's simplest and strongest Compression Coupling

Two Complete Cases—Double Strength.
Self Centering—Insuring Proper Alignment.
Internal Jaws or Clutches — Eliminating Strain on Connecting Bolts.
Greater Compression Area — Increasing Power Factor.

A stock that sells quickly and has a satisfaction guarantee back of it.

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Waldron, John, Corp., New Brunswick, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Flexible

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baldor Electric Co., St. Louis, Mo.
Bartlett Hayward Co., The, Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Brown Engineering Co., Reading, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Congress Tool & Die Co., Detroit, Mich.
Cook, H. N., Belting Co., San Francisco.
Cresson-Morris Co., Philadelphia, Pa.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Falk Corp., The, Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Frederick Iron & Steel Co., Frederick, Md.
General Electric Co., Schenectady, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Lovejoy Tool Works, Chicago, Ill.
Medart Co., St. Louis, Mo.
Meriam Co., The, Cleveland, Ohio.
Morse Chain Co., Ithaca, N. Y.

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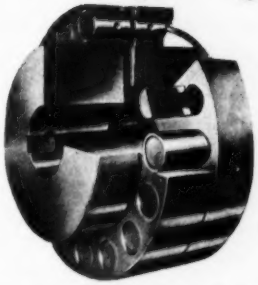
FRANCKE

Flexible Couplings



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IF you carry power transmission, you should sell flexible couplings. With the Morse line you cover the whole field. Morflex is an improved low priced quality coupling, using live rubber as flexing medium. The standard chain coupling is a superior all steel, grease packed coupling, that is rugged and sturdy. Depends on design for flexibility, not on material. Both Stock.

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Roots-Connersville Blower Corp., Connersville, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Waldron, John, Corp., New Brunswick, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Jaw Clutch

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Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee.
Fitz Water Wheel Co., Hanover, Pa.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, O.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Universal Joint

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Bond, Charles, Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith Power Transmission Co., The, Cleveland, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Soldering

Chicago Tubing & Braiding Co., Maywood, Ill.
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Haydenville Co., The, Haydenville, Mass.
Meyer Coupling Co., Inc., Los Angeles.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Walworth Co., New York, N. Y.

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Chicago Tubing & Braiding Co., Maywood, Ill.
Meyer Coupling Co., Inc., Los Angeles.
Torchweld Equipment Co., Chicago, Ill.

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Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Covering, Pipe and Boiler

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Eagle-Picher Lead Co., The, Chicago, Ill.
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Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
Wills Products Co., The, New York, N. Y.

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Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
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Dallett Co., The, Philadelphia, Pa.
Detroit Oak Belting Co., Detroit, Mich.
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Dodge Manufacturing Corp., Mishawaka, Ind.
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Graton & Knight Co., Worcester, Mass.
Gripwell Mfg. Co., New York, N. Y.
Hawes Manufacturing Co., Inc., Jersey City, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Master Grip Mfg. Co., Austin, Tex.
Menasha Wood Split Pulley Co., Menasha, Wis.
New York Belting & Packing Co., Passaic, N. J.
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Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Covering, Range Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York.
Keasbey & Mattison Co., Ambler, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

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Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., New York, N. Y.
Michigan Pipe Co., Bay City, Mich.
National Asbestos Mfg. Co., The, Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., New York, N. Y.
Spang, Chalfant & Co., Inc., Pittsburgh.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.
U. S. Mineral Wool Co., New York, N. Y.

Covers, Canvas

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Ohio Buff & Mfg. Co., The, Cincinnati, O.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.

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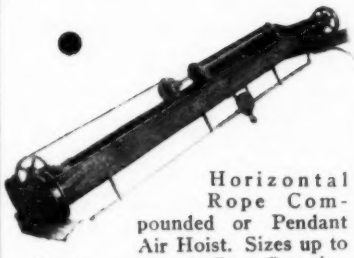

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Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Detroit Hoist & Machine Co., Detroit.
Euclid-Armington Corp., Euclid, Ohio.
Harrington Co., The, Philadelphia, Pa.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Industrial Brownhoist Corp., Cleveland, O.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Meyers, Inc., Hoist & Crane Division, Springfield, Ohio.
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Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
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Canton Foundry & Machine Co., The, Canton, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Elwell-Parker Electric Co., The, Cleveland, Ohio. (Electric)
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
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Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland.
Lane Mfg. Co., Montpelier, Vt.
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Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., The, Cleveland, Ohio.
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Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
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(See "Fittings, Pipe")

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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
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Quaker City Rubber Co., Philadelphia, Pa.
Reliance Rubber Corp., Keyport, N. J.

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American Injector Co., Detroit, Mich.
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Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W., Co., Muskegon, Mich.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Scovill Mfg. Co., Waterbury, Conn.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati.

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Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
American Stamping Co., Battle Creek, Mich.
Chain Belt Co., Milwaukee, Wis.
Cook's, Adam, Sons, Inc., Linden, N. J.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Essex Brass Corp., Detroit, Mich.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Jeffrey Manufacturing Co., Columbus, O.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merchant & Evans Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Leather
(See "Leathers, Cup and Flange")

Cups, Oil, Force Feed
Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Gas Engine
(See "Lubricators and Oil Cups, Gas Engine")

Cups, Oil, Glass Body
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Boston Gear Works, Inc., North Quincy, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Franklin Oil & Gas Co., The, Bedford, O.
General Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Oil, Loose Pulley
Adams Grease Gun Corp., New York, N. Y.
American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Plain Brass and Steel
Adams Grease Gun Corp., New York, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
American Stamping Co., Battle Creek, Mich.
Bay State Stamping Co., Worcester, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Oil, Slide
American Injector Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Victor Lubricator Co., Chicago, Ill.

Cups, Priming
American Injector Co., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati.

Cups, Valve
Chicago Rawhide Mfg. Co., The, Chicago.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O. (Valve, stem and guide)
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Parker Cup & Specialty Works, Parkers Landing, Pa. (Composition, canvas and leather)
Republic Rubber Co., The, Youngstown, O.
Schieren, Chas. A., Co., New York, N. Y.
Western Packing & Supply Co., Chicago.

Cutter Adapters
(See "Adapters, Cutter")

Cutters, Bar and Angle Iron
(See "Shears, Metal Cutting")

Cutters, Belt
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago.

Cutters, Bolt and Rivet
(See "Clippers—Bolt, Rivet and Wire")

Cutters, Chain
Porter, H. K., Inc., Everett, Mass.

Cutters, Circle, Glass
Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Karelsen, E., Inc., New York, N. Y.
Millers Falls Co., Greenfield, Mass.

Cutters, Circle, Metal
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Tool Co., The, Cincinnati, O.
Gairing Tool Co., The, Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niagara Machine & Tool Works, Buffalo.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torrington Mfg. Co., The, Torrington, Conn.

Cutters, Drill Press
Gairing Tool Co., The, Detroit, Mich.

Cutters, Electric Wire

Crescent Tool Co., Jamestown, N. Y.
Karelsen, E., Inc., New York, N. Y.
Porter, H. K., Inc., Everett, Mass.

Cutters, Emery Wheel Dresser

(See "Dressers, Emery and Grinding Wheel")

Cutters, Flue Hole

Gairing Tool Co., The, Detroit, Mich.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Cutters, Flue and Tube

Cowles Tool Co., Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
International Nutyp Tool Corp., Oswego, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Chicago, Ill.
Vincent Steel Process Co., Detroit, Mich.

Cutters, Form

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Gairing Tool Co., The, Detroit, Mich.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.

Cutters, Gauge Glass

Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cutters, Gasket

(See "Cutters, Washer and Gasket")

Cutters, Gear

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Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
Illinois Tool Works, Chicago, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Glass

American Saw & Mfg. Co., Springfield, Mass.
Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Karelsen, E., Inc., New York, N. Y. (Diamond, also Machines)
Kilborn and Bishop Co., The, New Haven, Conn.
Millers Falls Co., Greenfield, Mass.
Newark Brush & Scraper Co., Irvington, N. J.

Cutters, Grindstone

(See "Dressers, Emery and Grinding Wheel")

Cutters, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
National Tool Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Cutters, Keyseat

Baker Brothers, Inc., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R.I.
Burr, John T., & Son, Brooklyn, N. Y.
Cowles Tool Co., Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.

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Well Balanced Weight Where Needed

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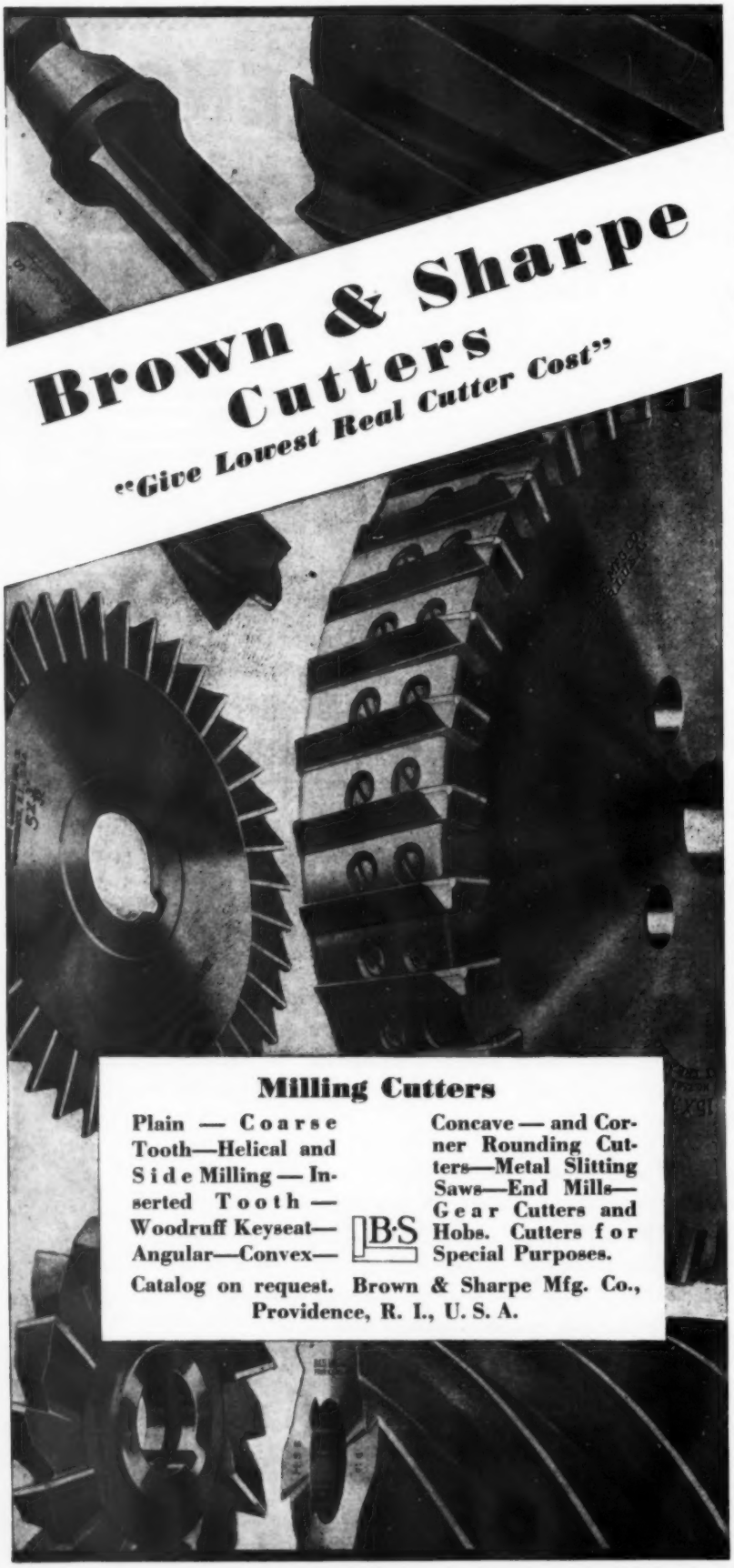
"The Magazine of Industrial Distribution"



Illinois Tool Works, Chicago, Ill.
Ingersoll Milling Machine Co., Rockford.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Mfg. Co., The, Hartford, Conn.

Cutters, Lace Leather

American Swiss File & Tool Co., Elizabeth, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.

Cutters—Lead Pipe

Bernz, Otto, Co., Inc., Rochester, N. Y.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Cutters, Milling

Alvord-Polk Tool Co., Millersburg, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gairing Tool Co., The, Detroit, Mich.
Illinois Tool Works, Chicago, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Lovejoy Tool Co., Inc., Springfield, Vt.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
O. K. Tool Holder Co., The, Shelton, Conn.
Orum, S. R. M., Inc., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Thurston Mfg. Co., Providence, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Pipe

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Armstrong Manufacturing Co., Bridgeport, Conn.

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with Thin Super-Steel Blade

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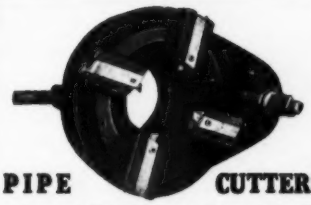

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New York Office & Display: 72 Lafayette Street

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Bernz, Otto, Co., Inc., Rochester, N. Y. (Lead pipe cutter)
Colimer Bros., South Bend, Ind.
Crane Co., Chicago, Ill.
Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Merreli Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Strickler, W. W., & Brothers, Columbus, O.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.

Cutters, Pipe, Wrought and Cast Iron

Armstrong Brothers Tool Co., Chicago.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.

Cutters, Rod

Armstrong-Blum Mfg. Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Carolus Manufacturing Co., Sterling, Ill.
Gundlach, T. J., Machine Co., Belleville, Ill.
National Machine Tool Co., Racine, Wis.
Porter, H. K., Inc., Everett, Mass.

Cutters, Screw Slotting

Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Shear

(See "Shears, Metal Cutting, Hand and Foot Power")

Cutters, Slitting Machine

Brown & Sharpe Mfg. Co., Providence, R.I.
Buffalo Forge Co., Buffalo, N. Y.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gundlach, T. J., Machine Co., Belleville, Ill.
Pratt & Whitney Co., Hartford, Conn.
Torrington Mfg. Co., The, Torrington, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Sprocket

Barber-Colman Co., Rockford, Ill.
Cowles Tool Co., Cleveland, Ohio.
Illinois Tool Works, Chicago, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Sprue

Buffalo Forge Co., Buffalo, N. Y.
Niagara Machine & Tool Works, Buffalo.
Rock River Machine Co., Janesville, Wis.
Tessmer Machine & Tool Co., Detroit.

Cutters, Tubing

Beaver Pipe Tools, Inc., Warren, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Oster-Williams, Cleveland, Ohio.

Cutters, Washer and Gasket

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cowles Tool Co., Cleveland, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Johnson, William, Inc., Newark, N. J.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, New Britain, Conn.

Refer to the

"Trade Name Index"

for trade names which are different from the company's name

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Hammel, Riglander & Co., Inc., New York, N. Y.
Porter, H. K., Inc., Everett, Mass.
Sandvik Saw & Tool Corp., Minneapolis.
Snap-On Tools, Inc., Kenosha, Wis.

Cutters, Wire Rope

Carolus Mfg. Co., Sterling, Ill.
Leschen, A., & Sons Rope Co., St. Louis.
Porter, H. K., Inc., Everett, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

Cutters, Woodworking

Atkins, E. C., and Co., Indianapolis, Ind.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Philadelphia.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Orum, S. R. M., Inc., Philadelphia, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Cutting Attachments, Gear

Brown & Sharpe Mfg. Co., Providence, R.I.

Cutting Machines, Gear

(See "Machines, Cutting, Gear")

Cutting and Threading Machines, Pipe

(See "Machines, Cutting and Threading, Pipe")

Cutting-off Machines, Metal

(See "Machines, Cutting-off, Metal")

Cylinders, Compressed Air or Gas

Air Reduction Sales Co., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Pneumatic Tool Co., New York.
Filer & Stowell Co., The, Milwaukee, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Modern Engineering Co., St. Louis, Mo.
National Transit Pump & Machine Co., Oil City, Pa.
National Tube Co., Pittsburgh, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Cylinders, Pump or Well

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Dean-Hill Pump Co., Anderson, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Midland Mfg. Co., Ft. Worth, Tex.
Myers, F. E., & Bro. Co., The, Ashland, O.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Walworth Co., New York, N. Y.

Demagnetizers

Luma Electric Equipment Co., Toledo, O.

Derricks

American Hoist & Derrick Co., St. Paul, Minn.
Buffalo Hoist & Derrick Co., Inc., Buffalo.
Channon, J. H., Corp., Chicago, Ill.
Harnischfeger Corp., Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Leschen, A., & Sons Rope Co., St. Louis.
Loane Engineering Co., Baltimore, Md.
Mueller Co., Decatur, Ill.

Derricks or Tripods, Portable

American Hoist & Derrick Co., St. Paul, Minn.
Loane Engineering Co., Baltimore, Md.
Speidel Elevator Corp., Reading, Pa.

Desks, Factory, Steel

Angle Steel Stool Co., Plainwell, Mich.
Hullhorst Micro-Tool Co., Toledo, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Pollard Bros. Mfg. Co., Chicago, Ill.
Remington Rand, Inc., Buffalo, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.

Detectors, Common and Flow

Central Automatic Sprinkler Co., Philadelphia, Pa.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Detergents

Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Duryea Products Co., New York, N. Y.
Ford, J. B., Co., The, Wyandotte, Mich.
Quigley Co., Inc., New York, N. Y.

Diamonds, Industrial

Commercial Diamond Co., Detroit, Mich.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Karelsen, E., Inc., New York, N. Y.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.

Diaphragms, Metal

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Lubron Co., The, Everett, Mass.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.

Diaphragms, Rubber, Boiler and Pump

Atlantic Manufacturing Co., Wilmington, Del.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Fisher Governor Co., The, Marshalltown, Iowa.
Garlock Packing Co., The, Palmyra, N. Y.

DIAPHRAGMS

—for trench pumps

—for regulators

or fabric inserted rubber sheet in lengths for cutting high-pressure sizes.

Elkhart Rubber Works
Elkhart, Indiana

Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N.J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N.J.

Diaphragms, Rubber, for Heat Regulators

Diamond Rubber Co., Inc., The, Akron, O.
Elkhart Rubber Works, Elkhart, Ind.
Goodrich, B. F., Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.

Die Sets

American Chain Co., Inc., Bridgeport, Conn.
Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.

Die Sinking Machines

(See "Machines, Die Sinking")

Die Sinking Outfits

Grobet File Corp. of America, New York.
Pratt & Whitney Co., Hartford, Conn.

Die Stocks

(See "Stocks and Dies" and "Stocks, Die")

Dies, Automatic Opening

Brown & Sharpe Mfg. Co., Providence, R. I.
Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.
Northern Specialty Co., Utica, N. Y.

Dies, Bending and Trimming

Brown, R. H., & Co., New Haven, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Dies, Blanking

Brown, R. H., & Co., New Haven, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Products Manufacturing Co., Milwaukee, Wis.
Quadriga Mfg. Co., The, Chicago, Ill.
Robinson Mfg. Co., Waterbury, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Whitney Metal Tool Co., Rockford, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Dies, Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, for Brass Tubing

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.

Dies, Cutting and Forming

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown, R. H., & Co., New Haven, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Curtin-Hebert Co., Inc., Gloversville, N. Y.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Products Manufacturing Co., Milwaukee.
Quadriga Mfg. Co., The, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Whitney Metal Tool Co., Rockford, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Dies, Marking

Everhot Mfg. Co., Maywood, Ill.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Martin Machine Co., Inc., Montague, Mass.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Superior Steel Stamp Co., Cleveland, O.

Dies, Pipe Threading

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division Union Twist Drill Co., Mansfield, Mass.
Crane Co., Chicago, Ill.
Curtis & Curtis Co., The, Bridgeport, Conn.
Erie Tool Works, The, Erie, Pa.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Nye Tool & Machine Works, The, Chicago, Ill.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Standard Tool Co., Cleveland, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Re-threading, Hexagon

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Screw Cutting, Adjustable, Boilermakers'

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit, Mich.
Champion Blower and Forge Co., Lancaster, Pa.
Geometric Tool Co., The, New Haven, Conn.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Sheet Metal Working

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Brown, R. H., & Co., New Haven, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Huot Manufacturing Co., St. Paul, Minn.
Marchant, Geo. F., Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Northern Specialty Co., Utica, N. Y.
Robinson Mfg. Co., Waterbury, Conn.
Rock River Machine Co., Janesville, Wis.
Scully-Jones & Co., Tool Division, Chicago.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Veeder-Root, Inc., Hartford, Conn.
Whitney Metal Tool Co., Rockford, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Dies, Stamping

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Brown, R. H., & Co., New Haven, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Globe Machine & Stamping Co., The Cleveland, Ohio.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Quadriga Mfg. Co., The, Chicago, Ill.
Robinson Mfg. Co., Waterbury, Conn.
Toledo Pressed Steel Co., The, Toledo, O.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Veeder-Root, Inc., Hartford, Conn.
Whitney Metal Tool Co., Rockford, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Dies, Threading

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bath, John, & Co., Inc., Worcester, Mass.
Beaver Pipe Tools, Inc., Warren, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit, Mich.
Champion Blower and Forge Co., Lancaster, Pa.
Erie Tool Works, The, Erie, Pa.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.

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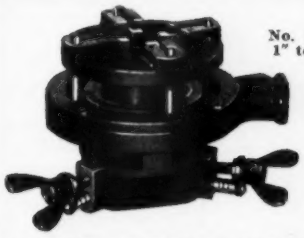

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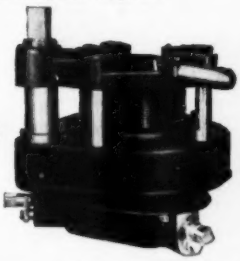

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Most types and sizes, "backed-off" teeth, correct cutting and throat angles, ample chip clearance. Special Chrome Vanadium Tool Steel, ground, hardened, oil tempered.

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Iwan Brothers, South Bend, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Dippers, Solder

Ingersoll Steel & Disc Co., Newcastle, Ind.
Littleford Bros., Cincinnati, Ohio.

Dippers, Tar

Littleford Bros., Cincinnati, Ohio.

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Black & Decker Mfg. Co., The, Towson, Md.
Carborundum Co., The, Niagara Falls, N. Y.
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Clover Mfg. Co., Norwalk, Conn.
Dallett Co., The, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
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Millers Falls Co., Greenfield, Mass.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Peninsular Grinding Wheel Co., Detroit, Mich.
Walis Sales Corp., New York, N. Y.

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Crane Co., Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Mueller Co., Decatur, Ill.

Discs, Brass and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
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Consolidated Metal Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston, Mass.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.
U. S. Indestructible Gasket Co., Brooklyn.

Discs, Friction

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Federal Metallic Packing Co., Wakefield, Mass.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

Discs, Leather

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Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Eagle Belting Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Michigan Leather Packing Co., Detroit.
Miley, L. J., Co., Inc., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord. N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Discs, Valve

American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa.
Belmont Packing & Rubber Co., The, Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, O.
Dick, R. & J., Co., Inc., Passaic, N. J.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Durabla Manufacturing Co., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
New York Belting & Packing Co., Passaic, N. J.
Page Belting Co., Concord, N. H.
Powell, Wm., Co., The, Cincinnati, Ohio.
Quadriga Mfg. Co., The, Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Balata & Textile Belting Co., New York, N. Y.
Walworth Co., New York, N. Y.

Dividers

Bernz, Otto, Co., Inc., Rochester, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Peck, Stow & Wilcox Co., Southington, Conn.

Dogs and Hooks, Bench

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Sargent & Co., New Haven, Conn.

Dogs, Chain

American Chain Co., Inc., Bridgeport, Conn.
Carr Chain Works, Inc., Troy, N. Y.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland.
Columbus McKinnon Chain Corp, Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Loomis Machine Co., Tiffin, Ohio.
Palmer-Bee Co., Detroit, Mich.
Vulcan Tool Mfg. Co., Quincy, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Dogs, Clamp

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Williams, J. H., & Co., New York, N. Y.

Dogs, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago.
Collmer Bros., South Bend, Ind.
Williams, J. H., & Co., New York, N. Y.

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LATHE AND MILLING
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ALL POPULAR
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75 Spring St., New York, N. Y.

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SUPERIOR DROP-FORGED TOOLS

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Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Williams, J. H., & Co., New York, N. Y.

Dogs, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Diamond Iron Works, Inc., Minneapolis.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.

Dogs, Timber

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Menasha Wood Split Pulley Co., Menasha, Wis.
Newhall Chain Forge & Iron Co., New York.

Dollies, Contractors'

American Hoist & Derrick Co., St. Paul, Minn.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Channon, J. H., Corp, Chicago, Ill.
Lansing Co., Lansing, Mich.
Menasha Wood Split Pulley Co., Menasha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Dollies, Timber

(See "Trucks, Dolly")

Door Openers and Closers

Barber-Colman Co., Rockford, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Truscon Steel Co., Youngstown, Ohio.

Doweling Machines

(See "Machines, Doweling")

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Forged from special open hearth steel that makes them extremely stiff and tough. Screws are of special alloy steel hardened at the point—will not upset—double wear threads. Hubs over-size, permit re-tapping. 11 types with square, headless or safety screws; with straight or bent tails.

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Sterling Wheelbarrow Co., Milwaukee, Wis. (Steel pins for foundry use)
Wickwire Brothers, Cortland, N. Y.

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American Foundry & Mfg. Co., St. Louis.
American Rolling Mill Co., The, Middletown, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Lupton's, David, Sons Co., Philadelphia, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Wheeling Corrugating Co., Wheeling, W. Va.

Draft Gauges

(See "Gauges, Draft")

Drainers, Cellar or Pit

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Aurora Pump Co., Aurora, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chain Belt Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Columbus Steam Pump Works Co., Columbus, Ohio.
Crane Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps. Inc., Seneca Falls, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Jackson, Byron, Co., Los Angeles, Calif.
McGowan, John H., Co., The, Cincinnati, O.
Mechanical Devices Co., Bloomington, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Well Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Draughtsmen's Instruments

(See "Instruments, Draughtsmen's and Engineers' ")

Drawers, Bench

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Lupton's, David, Sons Co., Philadelphia, Pa.
Pollard Bros. Mfg. Co., Chicago, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.

Dressers, Bibb Seat

Bernz, Otto, Inc., Rochester, N. Y.
Crane Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.

Dressers, Diamond

Chicago Wheel & Mfg. Co., Chicago, Ill.
Commercial Diamond Co., Detroit, Mich.
Desmond-Stephan Mfg. Co., Urbana, O.
Diamond Drill Carbon Co., The, New York.
Karelsen, E., Inc., New York, N. Y.
Vincent Steel Process Co., Detroit, Mich.

Dressers, Emery and Grinding Wheel

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bay State Stamping Co., Worcester, Mass.
Calder, Geo. H., Co., Lancaster, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Collmer Bros., South Bend, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Curtin-Hebert Co., Inc., Gloversville, N. Y.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Greene, Tweed & Co., New York, N. Y.
Karelsen, E., Inc., New York, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Oliver Motorcraft Corp., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.

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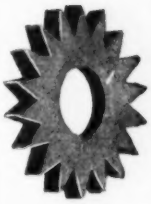
DRESSER CUTTERS



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No. 0. Dressers for use on wheels up to 1½" thick.

No. 1. Dressers for use on wheels 1⅝" to 2" thick.

No. 2. Dressers for use on wheels 2¼" thick and over.

(All numbers in regular, hooded, and special types.) Cutters of corresponding numbers for use with each size and style.

Every VINCENT Cutter Has 18 Teeth Count Them!

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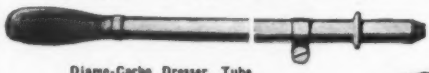
Desmond-Huntington Dressers, for use on largest and hardest grinding wheels where quick action is necessary.



Diamo-Carbo Dresser. Tube is filled its entire length with an abrasive almost as hard as diamond.

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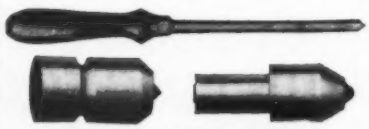

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The ideal tool for precision grinders. Hand tools and diamond nibs for Norton and Landis grinders shown above. Diamonds also mounted in all special holders.

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Most durable mechanical dresser made. Hexagon bearing nuts inserted in jaws give six sets of bearings. No wear on holder.

Hardened steel cutter made in three sizes for Desmond-Huntington Dressers.

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Sandvik Saw & Tool Corp., Minneapolis.
Standard Tool Co., Cleveland, Ohio.
Vincent Steel Process Co., Detroit, Mich.
Wave Cut File & Tool Corp, New York.

Dressing, Belt, Bar

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Armstrong-Bray & Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md
Beltonic Products Co., Chicago, Ill
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J
Couse & Bolton, Inc., Newark, N. J.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Eagle Belting Co., Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Home Rubber Co., Trenton, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
McCauley Belting Co., Chicago, Ill.
Magic Leather Treatment Co., Detroit.
Main Belting Co., Philadelphia, Pa.
Manufacturers' Belt Hook Co., Chicago.
Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.

RESEARCH BELT DRESSING

MADE BY THE MEN who make the Belting!

Conclusive evidence of the acceptance and saleability of Research Belt Dressing lies in the actual reactions we have gotten from the results obtained by users of the dressing. 5 to 20% increases in delivered H.P. have been reported and we have also received reports such as 9% increase in machine production obtained by a large manufacturing plant.

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Other Graton & Knight products—Research Belt Dressing, Lace Leathers, Round Belting and Belting Cements.

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WIZARD Stick Belt Dressing

Wizard Belt Sticks contain no rosin, rosin oil, fish oil or any other substance harmful to belting. We use pure castor oil, which makes the belt soft and flexible, able to hug the pulley and deliver the maximum load.

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We sell only to Distributors. Our sample system gets the orders. Write for the plan. Others are making it pay.

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White & Bagley Co., The, Worcester, Mass.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Zimmer, Conrad, Belting Co., New York.

Dressing, Belt, Liquid and Paste

Alexander Brothers, Inc., Philadelphia, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
American Asphalt Paint Co., Chicago, Ill.
Armstrong-Bray & Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Baum's Castorine Co., Rome, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bonner & Barnewall, Inc., New York, N. Y.
Burrell Belting Co., Chicago, Ill.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Commercial Chemical Co., Boston, Mass.
Couse & Bolten, Inc., Newark, N. J.
Covell-Hanchett Co., Big Rapids, Mich.
Curry Brothers Oil Co., Boston, Mass.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Detroit Oak Belting Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Products Co., New York, N. Y.
Eagle Belting Co., Chicago, Ill.
Ensign Products Co., Cleveland, Ohio. (Liquid only)
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Holyoke Belting Co., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial Belting Co., Chicago, Ill.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
Johnson Belting Co., New York, N. Y.
Kant Slip Mfg. Co., Chicago, Ill. (Liquid only)
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Pennsylvania Lubricating Co., Pittsburgh.
Philadelphia Belting Co., Philadelphia, Pa.
Protection Products Mfg. Co., Detroit, Mich.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
White & Bagley Co., The, Worcester, Mass.

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CLING-SURFACE is the only Belt Treatment which both preserves drive belts and stops slipping so completely that all types of Belts can be run easy (slack) under full loads. It penetrates to every fibre; waterproofs; energizes; maintains pliability. Savings in lengthened belt life and lower operating costs reach thousands of dollars yearly for large users.

WHAT THIS MEANS TO YOU: Plants use Cling-Surface habitually as a preventive, not as an emergency measure. They use it more often; they gladly pay more for its greater effectiveness; they reorder automatically (400 reorders is not unusual). You sell more; you sell a more profitable item; you sell in larger, steadier volume.

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DRUMS

Liquid in choice of 4 densities, packed in tins and drums from 1 pint to 60 gallon capacity.

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Pound and ½ pound bars for users who prefer Cling-Surface in bar form.

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New, convenient 4 oz. tubes available for use in small shops and homes (medium density only).

Beltonic Safstick Bar

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BELT DRESSING

Safe - Convenient and Economical

"Safstick" holder protects fingers from injury, saves the user's time, and allows the bar to be used to the very end. Patented device keeps bar from slipping back in holder. One pound bars.

Sold exclusively by mill supply houses. Ask for prices and sample of folders furnished distributors.

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ROCKWOOD BELT-PULL

Saves Belts—Saves Power

Adds Grip—Stops Slip

Ideal for reconditioning belts that have lost their grip. Takes hold instantly — gives immediate results. Effective for indoor or outdoor drives. Packed in quart and gallon cans $1.00 and $3.00—also in handy 25 cent tubes.

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Williams, I. B., & Sons, Dover, N. H.
Zimmer, Conrad, Belting Co., New York.

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Atkins, E. C., and Co., Indianapolis, Ind.
Baltimore Belting Co., Baltimore, Md.
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Cling-Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Himmelein & Bailey, Inc., Camden, N. J.
Jobbers Mfg. Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Dressing and Lubricants, Wire Rope

Alemite Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Cling-Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Cook's Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey, N. J.
Ensign Products Co., Cleveland, Ohio.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Jobbers Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Leschen, A., & Sons Rope Co., St. Louis.
Magic Leather Treatment Co., Detroit.
Pennsylvania Lubricating Co., Pittsburgh.
Sero Specialty Co., Cleveland, Ohio.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Wire Rope Lubricating Co., Trenton, N. J.

Drill, Anvil and Vise Combined

(See "Anvil, Vise and Drill Combined")

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American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Collis Co., The, Clinton, Iowa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drill Points

(See "Points, Drill")

Drill Speeders

(See "Speeders, Drill")

Drilling Attachments

Barnes Drill Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Craley, C. C., Mfg. Co., Shillington, Pa.
Ettco Tool Co., Brooklyn, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati.
Mueller Co., Decatur, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Rockford Drilling Machine Co., Rockford, Ill.
Stanley Electric Tool Division, New Britain, Conn.

Drilling Machines

(For drilling machines not found under the heading "Drills," see "Machines, Drilling.")

Drilling Machinery and Tools, Well

(See "Machines and Tools, Drilling, Well")

Drills, Air

(See "Machines, Drilling, Pneumatic")

Drills, Automatic Push

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Drills, Bell Hangers' and Electricians'

Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Bit Stock

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Blacksmiths'

Alvord-Polk Tool Co., Millersburg, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill and Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Breast

(See "Machines, Drilling—Breast, Chain and Hand")

Drills—Brick, Stone, Concrete, Masonry, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Arro Expansion Bolt Co., Marion, Ohio.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Crucible Steel Co. of America, New York.
Dallett Co., The, Philadelphia, Pa.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Mall Tool Co., Chicago, Ill.
Newhall Chain Forge & Iron Co., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Portable Power Tool Corp., Warsaw, Ind.
Rawlplug Co., Inc., The, New York, N. Y.
Star Expansion Bolt Co., New York, N. Y.
Vichek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Center

Bay State Tap & Die Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Coal

Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Rock Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Howells Mining Drill Co., Plymouth, Pa.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio.
Loomis Machine Co., Tiffin, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Core

Acker Drill Co., Scranton, Pa.
Bicknell-Thomas Co., Greenfield, Mass.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Diamond Pointed

(See "Tools, Diamond Pointed")

Drills, Electric, Portable

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.
Keystone Reamer & Tool Co., Millersburg, Pa.
Louisville Electric Mfg. Co., Louisville.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Misener Mfg. Co., Inc., Syracuse, N. Y.

(Continued on page 110)

RAWLDRILLS
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Easily Sharpened
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The most economical masonry drills at any price when you consider their life and drilling speed. They can be resharpened on any grinding wheel. A nationally known and used product of unequalled effectiveness. Our Jobbers' Merchandising Plan insures a profitable business. Write for full information.
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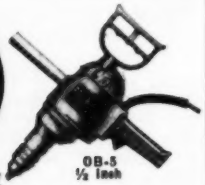
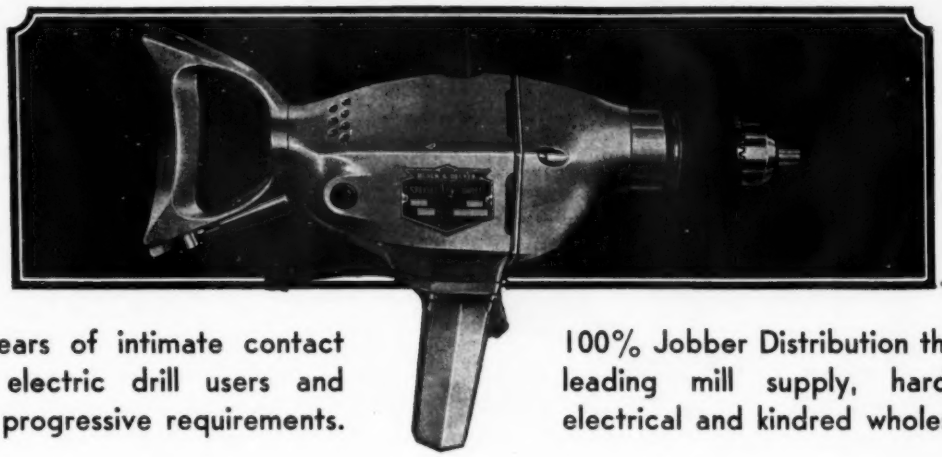

OB-5
½ Inch

OB-4
¼ Inch
SIGNAL

1910



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26 years of intimate contact with electric drill users and their progressive requirements.

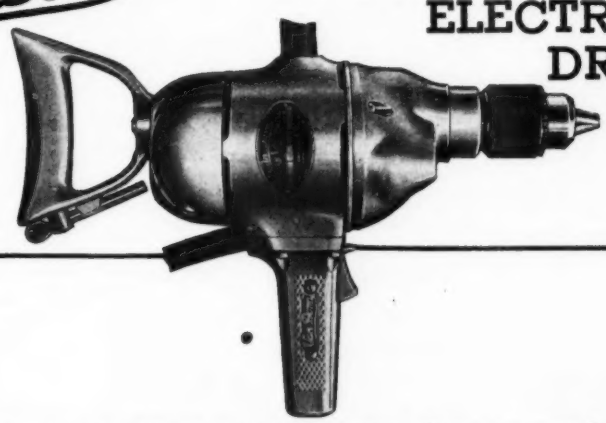
100% Jobber Distribution through leading mill supply, hardware, electrical and kindred wholesalers.

26 years of engineering and selling association with the progressive users of portable electric tools, has enabled us to develop the outstanding line of portable electric drills. Wherever electric tools are used, the name "BLACK & DECKER" is recognized as the symbol of modern design, quality and long service. The Drill Line is complete, ranging from 3/16" capacity to 1½" capacity; each tool properly powered and built for its field of application.

The Black & Decker Mfg. Co.
Towson, Maryland

"Van Dorn"

POWERFUL ELECTRIC DRILLS



Van Dorn offers to the aggressive Mill Supply Distributor, the most complete line of portable electric drills, famous for their power and stamina. Any user of portable electric drills, with experience on the "tough jobs" will tell you that, when you want a drill that will "stay in and deliver"—

For Power Specify "Van Dorn"

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U. S. ⅜" Heavy Duty

All Ball Bearing; rugged and powerful. Universal motor. Speed under load—400 R.P.M.; net weight—23½ lbs.; furnished for 32, 110, 220 and 250 volts.
Chrome Nickel Alloy steel gears.

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All Ball Bearing; Universal Motor. Speed under load—2000 R.P.M.; net weight—5¾ lbs.; furnished for 32, 110, 220 and 250 volts.
Chrome Nickel Alloy steel gears, quick make and break trigger switch.

—the World's Greatest Range—¼" to 2" Capacity

All U. S. Electric Drills are made to the most exacting specifications. They are well balanced, handy to use, fast, powerful—in short, the finest for any and all uses. Your customers will get A-1 performance at minimum expense.

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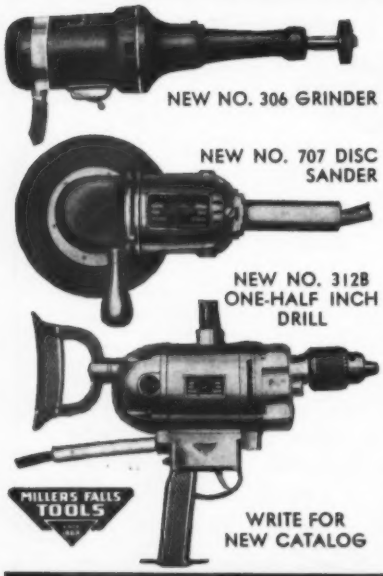

MILLERS FALLS COMPANY
Greenfield, Massachusetts

Drills, Electric, Portable

(Continued from page 108)

Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Signal Electric Mfg. Co., Menominee, Mich.
Simonds Saw and Steel Co., Fitchburg.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electrical Tool Division, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Drills, Electric, Stationary

(See "Machines, Drilling, Electric, Stationary")

A REAL DRILL
at a real price!
IDEAL
"Excel" Electric Drill

Sells on Demonstration. GOOD PROFIT!

You'll get quantity business on this famous ¼" Portable Electric Drill because it delivers power equal to drills selling for double the price. *Quality construction throughout — low in price!* Has universal AC-DC 110 volt motor. Write for prices and discounts.

IDEAL COMMUTATOR DRESSER CO.
1020 Park Avenue Sycamore, Ill.

Drills, Hammer

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Rawlplug Co., The, New York, N. Y.
Stanley Electric Tool Division, New Britain, Conn.
Star Expansion Bolt Co., New York, N. Y.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Left Hand

Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Masonry

(See "Drills, Brick, Stone, Concrete, Masonry, Etc.")

Drills, Oil Hole

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
Loomis Machine Co., Tiffin, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Oil Well, Portable

Loomis Machine Co., Tiffin, Ohio.
Sanderson Cyclone Drill Co., The, Orrville, Ohio.

Drills, Pipe Tapping

Barnes Drill Co., Rockford, Ill.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Drills, Plug

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Pneumatic

(See "Machines, Drilling, Pneumatic")

Drills, Portable, Electric

(See "Machines, Drilling, Electric, Portable")

Drills, Post

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Drills, Radio, in Sets

Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.

New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Ratchet

(See "Ratchets and Ratchet Drills")

Drills Reciprocating

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Ingersoll-Rand Co., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Spring Hammer

Cincinnati Tool Co., The, Cincinnati, Ohio.
Star Expansion Bolt Co., New York, N. Y.
Wodack Electric Tool Corp., Chicago, Ill.

Drills, Star Point

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Arro Expansion Bolt Co., Marion, Ohio.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crescent Tool Co., Jamestown, N. Y.
Crucible Steel Co. of America, New York.

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STAR DRILLS
STONE DRILLS
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Drop Forged
STAR DRILLS
Drop forged from special steel, hardened, heat treated and tempered. Special design, cut fast, hold sharpness.
All Sizes by 1 16/100" to 2".
One of the few complete lines of standard quality and price. The line to sell.
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Diamond Expansion Bolt Co., Garwood, N. J.
Drew, C., & Co., Kingston, Mass.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Rawlplug Co., Inc., The, New York, N. Y.
Star Expansion Bolt Co., New York, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Expansion Bolt Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodack Electric Tool Corp., Chicago, Ill.

Drills, Stone

American Swiss File & Tool Co., Elizabeth, N. J.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, O.
Crucible Steel Co. of America, New York.
Diamond Expansion Bolt Co., Garwood, N. J.
Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Loomis Machine Co., Tiffin, Ohio.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co., New York.
Portable Power Tool Corp., Warsaw, Ind.
Rawlplug Co.. Inc., The, New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Expansion Bolt Co., New York, N. Y.
Stow Mfg. Co., Inc., Binghamton, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
Vichek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Straight Shank and Taper Shank

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Crucible Steel Co. of America, New York.
Diamond Expansion Bolt Co., Garwood, N. J.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
New Process Twist Drill Co., Taunton, Mass.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Tap

Alvord-Polk Tool Co., Millersburg, Pa.
Colton, Arthur, Co., Detroit, Mich.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Track

Bay State Tap & Die Co., Mansfield, Mass.
Chicago Pneumatic Tool Co., New York.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll-Rand Co., New York, N. Y.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Diamond Expansion Bolt Co., Garwood, N. J.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.

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Reliable
Efficient
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Look for this Trade Mark on every tool
REAMERS
TAPS—DIES
MILLING CUTTERS
WHEEL DRESSERS
CHUCKS—ETC.
THE STANDARD TOOL CO.
CLEVELAND
NEW YORK - DETROIT - CHICAGO

Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Flat

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Clark Equipment Co., Buchanan, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
New Process Twist Drill Co., Taunton, Mass.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Wire Gauge

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Well

Chicago Pneumatic Tool Co., New York.
Crucible Steel Co. of America, New York.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Loomis Machine Co., Tiffin, Ohio.

Drills and Counterainks Combined

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Bradley Washfountain Co., Milwaukee.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Slocomb, J. J., Co., Providence, R. I.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drinking Fountains

(See "Fountains, Drinking")

Drivers, Drift Bolt and Spike

American Swiss File & Tool Co., Elizabeth, N. J.
Ingersoll-Rand Co., New York, N. Y.

Drives, Chain

(See "Chain, Transmission")

Drives, Friction Disc

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Medart Co., The, St. Louis, Mo.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Power, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beaver Pipe Tools, Inc., Warren, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.
General Electric Co., Schenectady, N. Y.
Link-Belt Co., Chicago, Ill.
Manley Products Corp., York, Pa.
Pyott Foundry Machine Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Drives, Power, Gasoline Motor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Belting Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.
Pyott Foundry & Machine Co., Chicago, Ill.

Drives, Rope

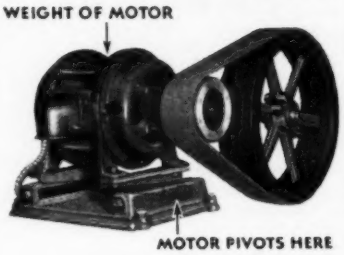
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Manufacturing Co., Brooklyn, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
Sutorbilt Corporation, Los Angeles, Calif.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Short Belt

Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Co., Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manley Products Corp., York, Pa.

(Continued on page 114)

ROCKWOOD
PIVOTED MOTOR DRIVE



STEADILY GAINING IN POPULARITY

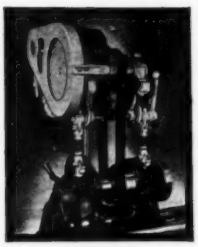
The most practical, most efficient way to transmit belt power from a motor to driven machine or lineshaft. The weight of the pivoted motor automatically maintains uniform belt tension, assuring dependable power and uniform driven speeds. Thousands of ROCKWOOD Drives now in service, but the market has scarcely been scratched. Investigate. Your customers are interested!

WHY NOT PUT IN A STOCK?

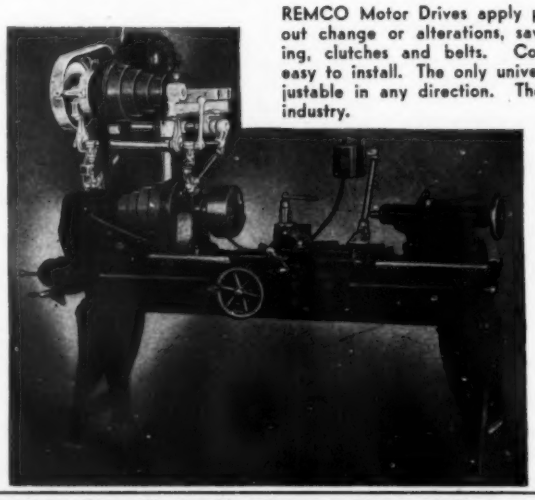
ROCKWOOD floor drive bases for motors up to 100 H. P.; ceiling bases up to 75 H. P.; vertical bases up to 50 H. P. Special sizes quickly to order. Write today for recommended assortment and prices.

THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

REMCO
MOTOR DRIVE



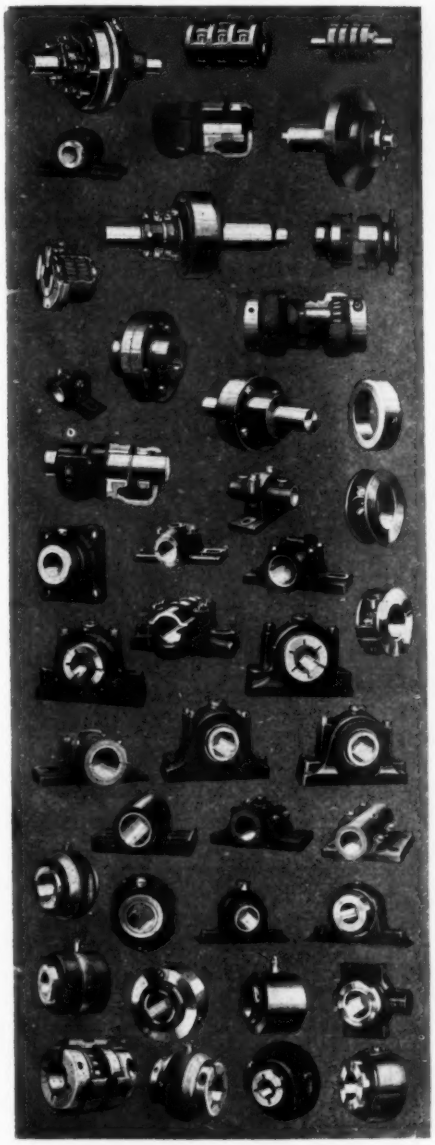
For applying electric power direct to lathes, shapers, milling machines, drill presses, grinders, hack saws and other machine tools.



REMCO Motor Drives apply power to the machine, without change or alterations, saving the cost of line shafting, clutches and belts. Compact, simple construction, easy to install. The only universal motor drive that is adjustable in any direction. The new drive for modernized industry.

DISTRIBUTORS: One Remco drive, being universal, fits many sizes of machine tools. Small stock supplies all requirements. Wide market—good profits. Ask for full details.

MANLEY PRODUCTS CORPORATION
YORK, PA.



EVERYTHING *for the* MECHANICAL TRANSMISSION *of* POWER

Only the Dodge line offers the right clutch, bearing or pulley for every job. Whether the drive is for a single machine or a group of machines, much depends upon the individual appliances comprising the drive unit. Dodge drives offer the advantages of standardization and a single guarantee of performance. Parts made together work best together.

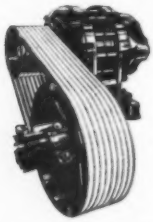
Dodge distributors are able to offer their customers the best drive for every job—no necessity for compromise on type of clutch, bearing or pulley because the Dodge line is complete and covers every power transmission requirement.

DODGE
MISHAWAKA

DODGE MANUFACTURING CORPORATION
MISHAWAKA, INDIANA

THE *Right* DRIVE FOR EVERY JOB

TEXROPE DRIVES



TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no bolt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H. P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

TEXROPE V-BELTS These belts, made for Allis-Chalmers by the B.F.Goodrich Rubber Co., are scientifically designed to withstand flexing and are formed in precisely machined moulds. The extreme accuracy of both Texrope Sheaves and V-Belts combine to give a very high degree of efficiency and long life.

DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

STRAITLINE MOTOR BASE With the new Straitline Automatic Ball Bearing Motor Base the finest adjustments are possible and easy to accomplish—all you do is turn a hand-wheel. The indicator dial, on this new motor base, tells you exactly what your tension is at all times and you can make your adjustment while running. This base eliminates all guesswork.

ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

Drives, Short Belt

(Continued from page 112)

Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sutorbilt Corporation, Los Angeles, Calif.
Schieren, Chas. A., Co., New York, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williams, I. B., & Sons, Dover, N. H.
Wood's, T. B. Sons Co., Chambersburg, Pa.

Drives, "V" Belt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Dick, R. & J., Co., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Gates Rubber Co., The, Denver, Colo.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manley Products Corp., York, Pa.
Medart Co., The, St. Louis, Mo.
Ohio Valley Pulley Works, Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago.
Raniville, F., Co., Grand Rapids, Mich.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Sutorbilt Corporation, Los Angeles, Cal.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons Co., Chamberburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

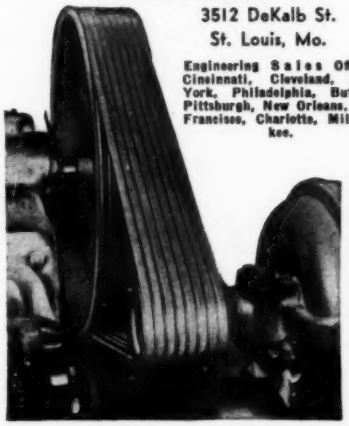
MEDART

V-ROPE DRIVES
Single and Multiple

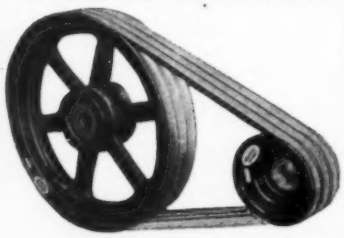
Medart V-rope drives are available in all standard designs. Write for the Medart MV Catalog 56-V, which contains complete instructions, prices, and engineering data.

THE MEDART COMPANY
General Offices and Works:
3512 DeKalb St.
St. Louis, Mo.

Engineering Sales Offices: Cincinnati, Cleveland, New York, Philadelphia, Buffalo, Pittsburgh, New Orleans, San Francisco, Charlotte, Milwaukee.



BROWNING
V-BELT DRIVES



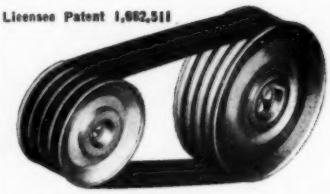
LARGEST FACTORY STOCK

DISTRIBUTING STOCKS EVERYWHERE

Ohio Valley Pulley Works
Div.—General Fibre Products, Inc.
Maysville, Ky.

ROCKWOOD V-BELT DRIVES

Licensee Patent 1,662,511



A COMPLETE LINE

ROCKWOOD offers a complete line of V-Belt Drives for all power applications from fractional H. P. to 1000 H. P.

Large stocks of ROCKWOOD Sheaves (steel and cast iron) and ROCKWOOD V-Belts insure prompt deliveries.

Write today for handy catalog, listing sizes and practical drive combinations. Our stocking dealer assortment will interest you.

THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Drives, Variable Speed

(See "Transmissions, Variable Speed")

Drum Pulleys

(See "Pulleys, Drum")

Drums or Barrels, Shipping, Steel

(See "Barrels and Drums, Steel")

Dryers, Metal Parts, Electric Portable

Hunter, James, Machine Co., North Adams, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.

Dryers, Mould, Portable, Electric

Ideal Commutator Dresser Co., Sycamore, Ill.
R. S. Products Corp., Philadelphia, Pa.

Dryers, Sand

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hersey Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Punxsutawney Foundry and Machine Co., Punxsutawney, Pa.
R. S. Products Corp., Philadelphia, Pa.

Duck, Cotton

Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Robinson, D., & Sons, Detroit, Mich.

Duck, Waterproof

Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Robinson, D., & Sons, Detroit, Mich.
Safety Equipment Service Co., Cleveland.
Upson-Walton Co., The, Cleveland, Ohio.

Dusters—Bench, Counter, Feather, Painters'

Osborn Mfg. Co., The, Cleveland, Ohio.

Dynamometers

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Diehl Mfg. Co., Elizabethport, N. J.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.

Edgers, Metal Working

DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Edgers, Side

Bernz, Otto, Co., Inc., Rochester, N. Y.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Farquhar, A. B., Co., Ltd., York, Pa.

Edgers, Woodworking

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Diamond Iron Works, Inc., Minneapolis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hermance Machine Co., Williamsport, Pa.
Lane Mfg. Co., Montpelier, Vt.
Mattison Machine Works, Rockford, Ill.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Titeflex Metal Hose Corp., Newark, N. J.
United States Machine Co., Williamsport, Pa.

Edges, Straight

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry & Sons, Inc., Tacony, Philadelphia, Pa. (Saw makers)
Mattison Machine Works, Rockford, Ill.

Ejectors

American Injector Co., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
Watson & McDaniel Co., Philadelphia, Pa.
Yeomans Brothers Co., Chicago, Ill.

Ejectors, Acid

American Injector Co., Detroit, Mich.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.

Ejectors, Sewage

American Injector Co., Detroit, Mich.
Economy Pumping Machinery Co., Chicago.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hennebohle, Frank, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Yeomans Brothers Co., Chicago, Ill.

Elbows, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
M & H Valve & Fittings Co., Anniston, Ala.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Parker Appliance Co., The, Cleveland, O. (For tube)

COUNTER or BENCH DUSTERS

● Refer to the Osborn Catalog. The various kinds of Osborn Counter or Bench Dusters are classified according to their uses for COARSE, MEDIUM and FINE requirements.

WINDOW CLEANING BRUSHES

Refer to the Osborn Catalog for complete data about the various kinds of Osborn Window Brushes including oblong, round and "spider" patterns.

MISC. BRUSHES

Information regarding the wide range of various Osborn Brushes made for miscellaneous uses appears in the Osborn Catalog.

See other Osborn advertisements and back cover.

THE OSBORN MANUFACTURING COMPANY
5401 HAMILTON AVENUE
CLEVELAND, OHIO
Sales Offices: New York, Detroit, Chicago, San Francisco

OSBORN

Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Williams, D. T., Valve Co., The, Cincinnati.

Elbows, Pipe, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frederick Iron & Steel Co., The, Frederick, Md.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Elbows, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Elbows, Pipe, Steel

American Rolling Mill Co., The, Middletown, Ohio.
Central Forging Co., The, Catawissa, Pa.
Crane Co., Chicago, Ill. (Cast and forged)
Kerotest Manufacturing Co., Pittsburgh, Pa. (Forged)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Midwest Piping & Supply Co., St. Louis.
Mitchell, W. K., & Co., Inc., Philadelphia.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky. (Forged)
Walworth Co., New York, N. Y. (Cast and forged)
Watson-Stillman Co., The, Roselle, N. J.

Elbows, Street

Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Malleable Iron Fittings Co., Branford, Conn.
M & H Valve & Fittings Co., Anniston, Ala.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Elbows, Union

Acheson Manufacturing Co., Rankin, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.

Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Electrodes, Welding

Air Reduction Sales Co., New York, N. Y.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Arcos, Inc., Philadelphia, Pa.
Bastian-Blessing Co., Chicago, Ill.
Crucible Steel Co. of America, New York.
General Electric Co., Schenectady, N. Y.
Linde Air Products, Inc., The, New York.
Lincoln Electric Co., The, Cleveland, Ohio.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Sight Feed Generator Co., Richmond, Ind.
Speer Carbon Co., St. Marys, Pa.
Sutorbilt Corporation, Los Angeles, Calif.
Torchweld Equipment Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York, N. Y.

Elevators, Barrel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., Marion, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Elevators, Hand Power

Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Lewis-Shepard Co., Boston, Mass.
Minnich Machine Works, Landisville, Pa
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Pyott Foundry & Machine Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Speidel Elevator Corp., Reading, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Bucket Elevators *are Universally used*

In your trading radius are many users and prospective users of Bucket Elevators. We will be glad to work with you on any prospects you might secure.

Sprout, Waldron & Co.
Muncy, Pa.

Elevators, Pilers or Stackers, Portable

Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Minnich Machine Works, Landisville, Pa.
Newhall Chain Forge & Iron Co., New York.
O. K. Clutch & Machinery Co., Columbia, Pa. (Portable contractors' elevators)
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Eliminators, Oil

(See "Oil Eliminators")

Emery and Other Abrasives (Cake, Powder, Flour and Grain)

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Emery & Stone Co., New York, N. Y.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Keystone Emery Mills, Philadelphia, Pa.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Norton Co., Worcester, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Pittsburgh Crushed Steel Co., Pittsburgh, Pa. (Sandblast abrasives).
Walls Sales Corp., New York, N. Y.
Waltham Grinding Wheel Co., Waltham, Mass.

End Mills

(See "Mills, End")

Ends, Bolt

Clark Bros. Bolt Co., Milldale, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
United Screw & Bolt Corp., Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wrought Iron Co. of America, Lebanon, Pa.

Ends, Hose

Acheson Manufacturing Co., Rankin, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Electric Hose & Rubber Co., Wilmington, Del.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Kelly Machinery Co., Chicago, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Ends, Rod and Yoke

Acme Machine Products Co., Muncie, Ind.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Billings & Spencer Co., The, Hartford, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Engines, Fire, Chemical

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Boyer Fire Apparatus Co., Logansport, Ind. (On wheels)
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Harker Mfg. Co., Cincinnati, Ohio.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Engines, Fire, Hand

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Harker Mfg. Co., Cincinnati, Ohio.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Engines, Hoisting, Gasoline

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Loane Engineering Co., Baltimore, Md.
Orr & Sembower, Inc., Reading, Pa.

Engines, Hoisting, Steam

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Farquhar, A. B., Co., Ltd., York, Pa.
Miller Machine Works, Springs, Pa.
Orr & Sembower, Inc., Reading, Pa.

Engines, Hydraulic

(See "Rams, Hydraulic")

Engines, Oil Well Drilling

Fairbanks, Morse & Co., Chicago, Ill.

Engines, Pumping

(See "Pumps, Engine")

Engines or Motors, Stationary — Gas, Gasoline, Kerosene and Oil

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
Barrett-Cravens Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Briggs & Stratton Corp., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Machine Shop Equipment Co., Grove City, Pa.
Micro Corp., The, Bettendorf, Iowa. (Oil)
Miller Improved Gas Engine Co., Springfield, Ohio.
Nelson Bros. Co., Saginaw, Mich. (Gasoline and kerosene)
Power Manufacturing Co., The, Marion, O.
Union Diesel Engine Co., Oakland, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Equipment, First Aid

(See "Cabinets and Equipment, First Aid")

Equipment, Painting and Whitewashing

(See "Machines and Equipment, Painting and Whitewashing")

Excavators, Gravel, Drag Line

American Hoist & Derrick Co., St. Paul.
Conco Engineering Works, Mendota, Ill.
Godfrey Conveyor Co., Elkhart, Ind.
Link-Belt Co., Chicago, Ill.
Marion Steam Shovel Co., The, Marion, O.

Exhausters, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Farquhar, A. B., Co., Ltd., York, Pa.
Federal Products Corp., Providence, R. I.
Foster Wheeler Corp., New York, N. Y.
Garden City Fan Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Roots-Connersville Blower Corp., Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Sutorbilt Corporation, Los Angeles, Calif.

Exhausters, Shavings and Dust

(See "Collectors, Exhausters [or Blower Systems] for Shavings and Dust")

Expanders, Coupling, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.

Elkhart Brass Mfg. Co., Elkhart, Ind.
Federal Products Corp., Providence, R. I.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Safety Fire Extinguisher Co., The, New York, N. Y.

Expanders, Flue and Tube

Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
International Nutyp Tool Corp., Oswego, N. Y.
Key Co., East St. Louis, Ill.
Plomb Tool Co., Los Angeles, Calif.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.

Explosives

Hercules Powder Co., Inc., Wilmington, Del.

Extensions, Bit

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Extensions, Drill

Farquhar, A. B., Co., Ltd., York, Pa.
Scully-Jones & Co., Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Extensions, Tap

Allen Mfg. Co., The, Hartford, Conn.
Scully-Jones & Co., Chicago, Ill.

Extinguishers, Fire

Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
C-O-Two Fire Equipment Co., Newark, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Central Pipe Fabricating Co., Atlanta, Ga.
Chapin, R. E., Co., The, Batavia, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Knight & Thomas, Inc., Boston, Mass.
Merchant & Evans Co., Philadelphia, Pa.
Miller Peerless Manufacturing Co., Chicago, Ill.
Phoenix Fire Extinguisher Co., Norwich, Conn.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.

Extinguisher, Fire, Liquid

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Harker Mfg. Co., Cincinnati, Ohio.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Knight & Thomas, Inc., Boston, Mass
Merchant & Evans Co., Philadelphia, Pa.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., New York.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

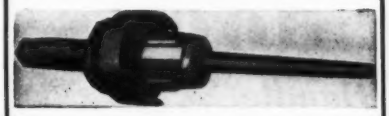
Extractors, Bushing

(See "Removers, Bushing")

Extractors, Cotter Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

EXPANDERS
ROLLER & SECTIONAL
ALL TYPES



SCULLY-JONES & COMPANY
1907 S. Rockwell Street
CHICAGO, ILLINOIS

Kilborn and Bishop Co., The, New Haven.

Extractors, Grease and Oil

Barrett, Leon J., Co., Worcester, Mass.
Fisher Governor Co., Marshalltown, Ia.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Steam Appliance Co., West Allis, Wis.
Rose, Frank, Mfg. Co., Hastings, Neb.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Extractors—Rivet, Bolt, Screw and Tap

Bristol Co., The, Waterbury, Conn.
Cleveland Twist Drill Co., The, Cleveland.
Crescent Belt Fastener Co., New York.
Greenfield Tap & Die Corp., Greenfield, Mass.
Jay Tee Tool Sales Co., Cleveland, Ohio.
Manufacturers' Belt Hook Co., Chicago.

WILBUR FIRE EXTINGUISHER

The pump is outside the liquid
Won't gum up or corrode
Liquid won't evaporate

WIL-X-M'F'G CORP.
Associated with
Mergenthaler Linotype Co.
29 Ryerson Street
Brooklyn, N. Y.

Mechanics Tool & Wrench Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, New Britain, Conn.

Eyelets, Terminal, and Tools

Schollhorn, Wm., Co., The, New Haven, Conn.

Facers, Spot

Alvord-Polk Tool Co., Millersburg, Pa.
Gairing Tool Co., The, Detroit, Mich.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Facings, Clutch

Asbestos Mfg. Co., Huntington, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago. (Leather)
Couse & Bolten, Inc., Newark, N. J.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Facings, Foundry

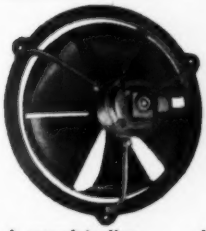
Dixon, Joseph, Crucible Co., Jersey City.
Globe Steel Abrasive Co., The, Mansfield, Ohio.
Pittsburgh Crushed Steel Co., Pittsburgh.
United States Graphite Co., The, Saginaw, Mich.

Fans, Electric

American Blower Corp., Detroit, Mich.
Barber-Colman Co., Rockford, Ill.
Bishop & Babcock Sales Co., Cleveland.
Buffalo Forge Co., Buffalo, N. Y.
Century Electric Co., St. Louis, Mo. (Portable ceiling ventilating fans)
Champion Blower and Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Diehl Mfg. Co., Elizabethport, N. J.
Emerson Electric Mfg. Co., The, St. Louis.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Ilg Electric Ventilating Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Meier Electric & Machine Co., The Indianapolis, Ind.
Propellair, Inc., Springfield, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Signal Electric Mfg. Co., Menominee, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Sturtevant, B. F., Co., Boston, Mass.
Torrington Mfg. Co., The, Torrington, Conn.
Victor Electric Products, Inc., Cincinnati.
Wagner Electric Corp., St. Louis, Mo.

Fans, Exhaust

American Blower Corp., Detroit, Mich.
American Propeller Co., The, South Bend, Ind.



BUCKET BLADE VENT fan

A complete line . . . . bucket and flat blade type fans for A.C. or D.C. . . . automatic shutters, switches and kitchen fans, adjustable or built-in models.

SIGNAL ELECTRIC MFG. CO.
Menominee, Michigan, U.S.A.

SIGNAL MANUFACTURERS OF ELECTRICAL PRODUCTS

CLIPPER HOOKS

Safest to Handle

Safest in Operation

Wear Longer and Cost Less

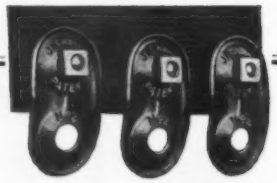
The most convincing and conclusive proof of Clipper Superiority is that there are More Clipper Belt Hooks and Clipper Belt Lacers sold than all other makes combined

Clipper Belt Lacer Company
GRAND RAPIDS MICHIGAN
QUALITY Clipper BELT LACING

The Genuine

JACKSON
Belt Fastener

JACKSON'S Belt Fasteners have been in use over 25 years on every kind and all sizes of belting. They are acknowledged the best and strongest fastener for heavy duty transmission and conveying belts. Write for catalog and information.



SIZES

Size of Plate	For Use on Belts
No. 0	1½ to 2 inch wide
No. 1 small	2½ to 4 " "
No. 1 large	5 and 6 " "
No. 2 small	7 to 9 " "
No. 2 large	7 to 9 " "
No. 3	10 to 16 " "
No. 4	18 to 24 " "
No. 5	Above 24 " "

ISAAC JACKSON
BELT FASTENER CO.
18 Vesey St., - - - New York, N. Y.

Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, O.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diehl Mfg. Co., Elizabethport, N. J.
Emerson Electric Mfg. Co., The, St. Louis.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hartzell Propeller Fan Co., Piqua, Ohio.
Ilg Electric Ventilating Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Marathon Electric Mfg. Co., Wausau, Wis.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Paasche Airbrush Co., Chicago, Ill.
Propellair, Inc., Springfield, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Signal Electric Mfg. Co., Menominee, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corporation, Los Angeles, Calif.
Torrington Mfg. Co., The, Torrington, Conn.
Victor Electric Products, Inc., Cincinnati, Ohio.
Wagner Electric Corp., St. Louis, Mo.

Fasteners and Hooks, Belt

Armstrong-Bray & Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown, D. P., & Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Couse & Bolton, Inc., Newark, N. J.
Crescent Belt Fastener Co., New York.
Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Edwards, H. D., & Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Jackson, Isaac, Belt Fastener Co., Inc., New York, N. Y.
Jewell Belt Hook Co., Naugatuck, Conn.
Johnson Belting Co., New York, N. Y.
Jones, H. H., Lancaster, N. H.
Manufacturers' Belt Hook Co., Chicago.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rahmann, Geo., & Co., New York, N. Y.
Republic Steel Corp., Cleveland, Ohio.
Russell Mfg. Co., Middletown, Conn.
Safety Belt-Lacer Co., Toledo, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Smith, F. P., & Co., Sharon Hill, Pa.
Standard Belt Fastener Co., The, Unionville, Conn.
Stow, H. J. (Successor to Kenehan Steel Belt Fastener Co.), Chicago, Ill.
Talcott, W. O. & M. W., Inc., Providence, R. I.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Balata & Textile Belting Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.
Webb, J. A., Belting Co., Inc., Buffalo.
Zimmer, Conrad, Belting Co., New York.

Faucets

(For faucets not included in the following classifications, see "Cocks and Faucets")

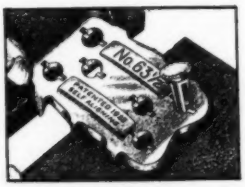
Chase Brass & Copper Co., Waterbury, Conn.

Faucets and Cocks, Barrel

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tessmer Machine & Tool Co., Detroit.
Walworth Co., New York, N. Y.

Faucets, Petroleum

Haydenville Co., The, Haydenville, Mass.



Standard Self-Aligning Belt Fasteners

Insure Correct Application of Both Plates and Rivets — Rust Proof

Endorsed by Belt Makers

The Standard Belt Fastener Co.
Unionville, Conn.

Smith's Patent
BELT FASTENERS

Make the Joint the Strongest Part of the Belt.

H. D. EDWARDS & CO.
Detroit, Mich.

SHERMAN

Good margin, quick service on distributors' orders. . . .

Figure 106 Self-closing

BARREL FAUCETS

Solid Brass Handles

Two types: Self closing, lock lever type (3/4" size only); and Ground key lock lever type (5/8" and 3/4" sizes). . . .

Sold by Jobbers

Theft-Proof Easily Operated Long Wearing Will Not Leak Full Flow

H. B. SHERMAN MFG. CO.
BATTLE CREEK, MICH.

The SETTE
Self Closing Faucet

for steel drums, barrels, etc. Has metal to metal seat. No packing to dry out. Closes automatically. Can be locked open or closed.

Holds naphtha, linseed oil, paints, lacquers, thinners, etc., without leaking. 3/4" iron pipe thread. List, each $1.00.

The Imperial Brass Mfg. Co.
511 S. Racine Ave. CHICAGO, ILL.

Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Sargent & Co., New Haven, Conn.

Faucets, Radiator Filling, Self-Closing

Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Morrison Bros., Dubuque, Iowa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Feeders, Boiler Compound

Fisher Governor Co., The, Marshalltown, Iowa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Feeders, Boiler Oil

General Brass Co., Detroit, Mich.

Feeders, Boiler Water

American Injector Co., Detroit, Mich.
Burrows, F. A., Co., York, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Gardner-Denver Co., Quincy, Ill.
Kieley & Mueller, Inc., New York, N. Y.
McDonnell & Miller, Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond, Cleveland.
Wright-Austin Co., Detroit, Mich.

Feeders, Furnace

Jeffrey Mfg. Co., The, Columbus, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Feeders, Graphite Lubricant

Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.

Feeds, Punch Press, Automatic

Federal Press Co., Elkhart, Ind.
Little, F. J., Machine Co., Chicago, Ill.
Wittek Mfg. Co., Chicago, Ill.

Feeds, Sawmill Carriage

Allis-Chalmers Manufacturing Co., West Allis, Wis.

Felt, Asphalt

Armstrong Cork Products Co., Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.

Felt, Building

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Johns-Manville, New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Hair

Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Johns-Manville, New York.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Slaters'

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Barber Asphalt Co., The, Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.

Felt, Tarred

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Barrett Co., The, New York, N. Y.
Barber Asphalt Co., The, Philadelphia, Pa.
Johns-Manville, New York.
Ruberoid Co., The, New York, N. Y.

Felt, Wool

Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Johns-Manville, New York.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Felt Goods, Mechanical

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.

WITTEK
AUTOMATIC
Roll Feeds
FOR PUNCH PRESSES
FAST—ACCURATE AUTOMATIC

Will feed from 0" to 24" or more per stroke. Made in single or double roll for every size or make of punch press.

WITTEK Reel Stands

for coil stock are made in five types with either plain or ball bearings.

Write for Bulletin MD

4302 W. 24TH PL. CHICAGO, ILL. WITTEK MFG. CO.

Auburn Manufacturing Co., The, Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Gross Rubber Co., Sharon, Pa.

Fence, Wire

American Chain Co., Inc., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Cyclone Fence Co., Waukegan, Ill.
Giant Mfg. Co., Council Bluffs, Iowa.
Page Steel and Wire Division, American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Spencer Steel Co., New York (chain link).

Ferrules, Brass

American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Crescent Belt Fastener Co., New York.
Everitt Co., The, Boston, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Midland Mfg. Co., Ft. Worth, Tex.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.

Ferrules, Combination Lead and Iron

Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Nunn Brass Works, Rochester, N. Y.

Ferrules, Condenser

Chase Brass & Copper Co., Waterbury, Conn.
Everitt Co., The, Boston, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
National Copper & Smelting Co., Cleveland, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.

Ferrules, Copper, Boiler and Heater Tube

Bay State Stamping Co., Worcester, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
National Copper & Smelting Co., Cleveland, Ohio.
Nunn Brass Works, Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torrington Mfg. Co., The, Torrington, Conn.

Ferrules, Drive, Iron

American Foundry & Mfg. Co., St. Louis.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.

Ferrules, Hose

Chicago Tubing & Braiding Co., Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Rubber Co., Inc., The, Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Ferrules, Lead

Eagle-Picher Lead Co., The, Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.

Ferrules, Trap Screw

American Foundry & Mfg. Co., St. Louis.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
National Lead Co., New York, N. Y.

MADE IN AMERICA FOR AMERICAN INDUSTRY

CARSON NEWTON

ALLIGATOR BRAND

FILES

A complete line of Swiss and American patterns in all sizes, shapes and cuts to fill every filing need.

ALLIGATOR SWISS PATTERN

Their 25 years of service in industry throughout the most discriminating manufacturing plants, is conclusive proof of their quality.

AMERICAN PATTERN

In Two Grades

1st—"Du-more" (Red Label)
The highest grade commercial pattern file.

2nd—"Kleen-Kut" (Blue Label)
A first quality grade commercial pattern file.

Complete Catalog and Prices upon Request. Let Us Quote You

The Alligator Trade Mark on a File is your guarantee that it has passed the highest test as to shape, cutting quality and uniform hardness and is perfect in every respect.

"As the Alligator Bites, so does a Carson-Newton File"

CARSON NEWTON COMPANY

21-23 PROSPECT ST. NEWARK, N. J.

Newbury Manufacturing Co., Monroe, N.Y.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.

Ferrules, Union

Kupferle, John C., Foundry Co., St. Louis.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Nunn Brass Works, Rochester, N. Y.

Ferrules, Vent and Cleanout

American Foundry & Mfg. Co., St. Louis.
Chase Brass & Copper Co., Waterbury, Conn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.

Fibre, Hard—Sheets, Tubes, Rods, Pipe, Etc.

Continental-Diamond Fibre Co., Newark, Del.
General Electric Co., Schenectady, N. Y.
Johns-Manville, New York.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Filers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Foley Manufacturing Co., Minneapolis.
H. D. B. Corporation, Chicago, Ill.
Hayes File Co., Detroit, Mich.
Heller Bros. Co., Newark, N. J.
Hoe, R., & Co., Inc., Bronx, New York.
Sandvik Saw & Tool Corp., Minneapolis.

Files, Hand

American Emery & Stone Co., New York, N. Y.
American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.

(Continued on page 123)

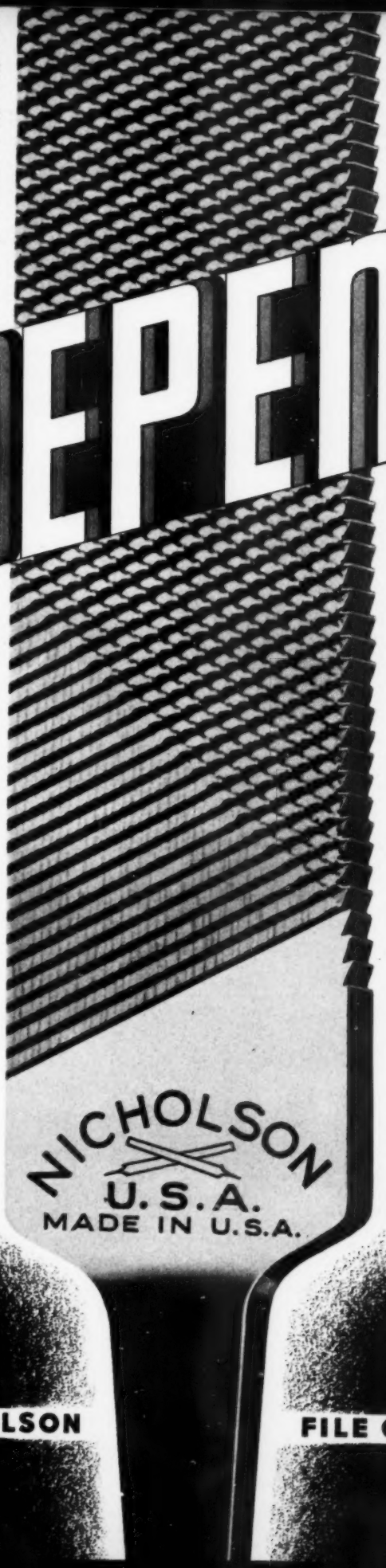
Street Addresses

or

Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

DEPENDABLE



A
FILE
FOR
EVERY
PURPOSE

NICHOLSON FILE COMPANY · PROVIDENCE · R·I·· U·S·A·

XUM

MUST BE GOOD ENOUGH

It is not necessarily enough for a man who works at the Nicholson File Company to do his best. His best has got to be good enough to contribute its part toward making Nicholson Files the most dependable files in the world.

The men who make up our splendid corps of file experts have proved that their best is good enough; that they understand the selection of raw material; all the processes of manufacture; and how to make rigid final tests.

The result is that Nicholson Files are the most dependable files available anywhere. Made by the thousands of dozens, Nicholson Files have no hidden defects to throw them off their performance in the middle of a delicate job. Made by experts, they are sharp, durable and uniform. They are the Most Dependable Files in the World.

his Company gives its men long raining, every possible manufac- uring facility, and then lays down n inflexible rule that Nicholson Files must be dependable.

Genuine

NICHOLSON FILES

A FILE FOR EVERY PURPOSE

SUPER DUTY

SUPERIOR CUTTING TOOLS

Backed by a 5-Point Sound Merchandising Policy

1. Sales—Merchandising only through recognized distributors.
2. Resale Policy—Distributors receive proper margin of profit through maintained resale discount.
3. Factory Cooperation — Through definite, planned factory help.
4. Publicity—Consumer advertising concentrated in distributor's market.
5. Quality Products—Quality constantly maintained and guaranteed.

THE CLEVELAND FILE CO. U.S.A. SPECIFY SUPER DUTY BRAND EXCLUSIVE MFRS.

QUALITY FILES SINCE 1899

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

THE CLEVELAND FILE CO.

3400 Hamilton Avenue Cleveland, Ohio

Distributors—

All your salesmen will benefit from reading every issue of

Mill Supplies

■

Investigate—

our very interesting Group Subscription Plan for distributors' Salesmen.

■

Write—

MILL SUPPLIES

330 West 42nd St.

NEW YORK, N. Y.

Files, Hand

(Continued from page 120)

Cleveland File Co., The, Cleveland, Ohio.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York.
H. D. B. Corporation, Chicago, Ill.
Hayes File Co., Detroit, Mich.

(Continued on page 124)

For Trade Names Which are Different from the Company Name See the "Trade Name Index"

SIMONDS

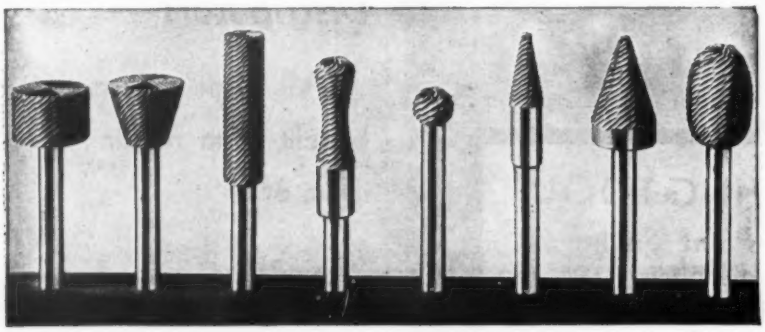
DISTINCTIVE—FIRST QUALITY

RED TANG FILES

Guaranteed Fast Cutting—Easy to sell.

SIMONDS SAW AND STEEL CO. - - Fitchburg, Mass.

FORD HAND CUT ROTARY FILES



Sell Satisfactory Service

and Lower Filing Costs when you offer Ford Hand Cut Rotary Files made of High Speed Steel.

FOR

Die Sinking	Finishing
Die Making	Sizing
Stamping	Burring
Tire Molds	Engraving
Wood Reamers	Pattern Making

All standard types and sizes—special files to order. . . . Made in High Speed and Carbon Steel. . . . Excellent distributor proposition. Write for discounts.

M. A. FORD MFG. CO.
102 Harrison Street
DAVENPORT, IOWA

GROBET SWISS FILES

—the only logical file line for your customers

How well are Grobet Files known? Over 100 years of experience and research are in back of Grobet files. They are sold by more than 200 distributors.

What is Grobet quality? "Grobet" means precision files of high cutting speed, indispensable for accurate filing.

How complete is the line? Grobet Swiss Files are made in nine numbers of cut—Nos. 00, 0, 1, 2, 3, 4, 5, 6, 8: No. 00 corresponds to bastard cut; Nos. 0-1 to second cut; No. 2 to smooth cut; Nos. 3-4 to super smooth cut. Altogether, there are over 4,000 different shapes, sizes, and cuts. The line includes Grobet Rifflers, Grobet Machine Files for Hartford, Illinois, LaPorte, Cochrane-Bly, Oliver, Thiel, and Harvey Filing Machines; Grobet Rotary Files; and Grobet Curved and Wave Cut Files.

Our latest Catalogue B should be in your file.

GROBET FILE CORP. OF AMERICA
3 Park Place *New York City*

Files, Hand

(Continued from page 123)

Heller Brothers Co., Newark, N. J.
Hoe, R., & Co., Inc., Bronx, New York.
Nicholson File Co., Providence, R. I.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Wave Cut File & Tool Corp., New York.

Files—Magneto, Coil, Spark Plug or Commutator

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.
Cleveland File Co., The, Cleveland, Ohio.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Heller Brothers Co., Newark, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill. (commutator).
Nicholson File Co., Providence, R. I.
Sandvik Saw & Tool Corp., Minneapolis.
Stevens, Walden, Inc., Worcester, Mass.
Wave Cut File & Tool Corp., New York.

Files, Rotary

Carson-Newton Co., Newark, N. J.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ford, M. A., Mfg. Co., Davenport, Iowa.
Grobet File Corp. of America, New York.
H. D. B. Corporation, Chicago, Ill.
Hayes File Co., Detroit, Mich.
Hergi Mfg. Co., The, Bridgeport, Conn.
Pratt & Whitney Co., Hartford, Conn.
Strand, N. A., & Co., Chicago, Ill.
Wave Cut File & Tool Corp., New York.

Files, Swiss Pattern

American Swiss File & Tool Co., Elizabeth, N. J.
Carson-Newton Co., Newark, N. J.

(Continued on page 126)

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

HELLER NUCUT WAVY TEETH FILE

PATENT PENDING

Distributors—

Heller NUCUT Files will change your "price" buyers to "quality" buyers, and attract repeat business. Heller has a century of manufacturing experience behind its products.

- The NUCUT "Wavy Teeth" principle—a combination of fine and coarse cutting surfaces—represents the first genuine advance in file design in 50 years.

- Actual tests prove that NUCUT files remove more metal, last longer, and leave a smoother finish than ordinary files. Because of their wavy teeth, NUCUT files will not "clog" quickly.

- NUCUT files cut with equal performance on Aluminum, Brass, Bronze, Copper, Fibre, Marble, Slate, and Wood.

- NUCUT "Wavy Teeth" files have been proved in hundreds of industrial plants, both large and small, throughout the country. The NUCUT is "industry's file."

- Not only will the NUCUT line increase your file sales, it will attract other profitable tool business, because NUCUT creates "repeat" customers.

• NUCUT file performance is due to the combination of fine and coarse teeth, obtained by irregular spacing of the overcut. NUCUT files are electric hardened and heat treated.

HELLER BROTHERS COMPANY

NEWARK, NEW JERSEY, U. S. A.

"a century of manufacturing experience"

Other Heller Products: Battery Jar Pliers • Battery Plate Separators
Chisels • Hammers • Carpenters' Pincers • Wrenches

GOOD TOOLS SINCE 1836

AMERICAN SWISS

Files of precision

MADE IN UNITED STATES

TRADE ONLY THE BEST ARE GOOD ENOUGH MARK

FILES TOOLS

OVER 2,000 DIFFERENT SIZES, SHAPES AND CUTS

There is an American Swiss file to fit the most intricate piece of filing. These files are made as closely to size as humanly possible. Special heat treating insures uniform hardness, large factory stocks maintained to assure prompt service at all times.

STYLES

Hand
Pillar (Regular)
Pillar (Narrow)
Pillar (Extra Narrow)
Half Round
Slim Half Round
Half Round Ring
Crossing
Knife
Warding
Equaling
Barrette
Cant
Pippin
Crochet
Round
Square
Three Square
Metal Saw
Slitting
Checkering
Parallel Round
Spark Plug
Half Round (Coarse Cut)
Flat (Coarse Cut)
Mill
Mill (2 Round Edges)
Finishing
Taper Saw
Slim Taper Saw
Round Edge Joint
Square Edge Joint
Die Sinkers
Needle
Escapement
Machine
Die Sinkers' Riffers
Silversmiths' Riffers

We make a complete line of mechanics' hand tools and knurls.

Send for catalog and price list.

AMERICAN SWISS FILE & TOOL CO.

ELIZABETH, N. J.

Files, Swiss Pattern

(Continued from page 124)

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Grobet File Corp. of America, New York, N. Y.
Heller Bros. Co., Newark, N. J.
Nicholson File Co., Providence, R. I.

Filing Machines, Die

(See "Machines, Die Filing and Milling")

Filing and Setting Machines, Saw

(See "Machines, Filing and Setting, Band Saw," and "Machines—Saw Filing, Setting and Jointing")

Filing Machines, Sawmill and Machine Shop

(See "Machines, Filing, Sawmill and Machine Shop")

Filings—Iron and Steel

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Heller Bros. Co., Newark, N. J.

Filler or Insulation, Conduit

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Columbian Rope Co., Auburn, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Johns-Manville, New York.
Sauereisen Cements Co., Pittsburgh, Pa.
Walker-Turner Co., Inc., Plainfield, N. J.

Filler, Iron and Steel

(See "Cement and Filler, for Iron and Steel")

Fillers, Barrel, Automatic

Bowser, S. F., & Co., Fort Wayne, Ind.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Fillers, Oiler

Eagle Manufacturing Co., Wellsburg, W. Va.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.

Fillet, Leather and Wood

Chicago Rawhide Mfg. Co., The, Chicago.
Himmelein & Bailey, Inc., Camden, N. J.
Hudson-Sharp Machine Co., Green Bay, Wis.
Illinois Mechanical Leather Co., Chicago, Ill. (Leather only).
Page Belting Co., Concord, N. H. (Leather only)
Schieren, Chas. A., Co., New York, N. Y.

Filtering Materials

Loomis-Manning Filter Distributing Co., Philadelphia, Pa.
Newark Wire Cloth Co., Newark, N. J.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Union Fibre Sales Co., Winona, Minn. (For acids, gas and oils)
Wickwire Spencer Steel Co., New York, N. Y.

Filters, Air

American Air Filter Co., Louisville, Ky.
American Blower Corp., Detroit, Mich.
American Foundry Equipment Co., Mishawaka, Ind.
Baker-Hansen Mfg. Co., Alameda, Calif.
Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Coppus Engineering Corp., Worcester, Mass.
Gast Mfg. Co., The, Bridgman, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Filters, Cistern

Loomis-Manning Filter Distributing Co., Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.

Filters, Coolant

Fostoria Pressed Steel Corp., The, Fostoria, Ohio.

Filters and Purifiers, Feed Water

Crane Co., Chicago, Ill.
Loomis-Manning Filter Distributing Co., Philadelphia, Pa.
Miller, E. L., Mfg. Co., Kansas City, Mo.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Filters, Oil

Bousman Mfg. Co., Grand Rapids, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, O.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Nugent, Wm. W., & Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
Toledo Pressed Steel Co., The, Toledo, Ohio.

Filters, Water, Industrial

American Filter Co., Milwaukee, Wis.
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Fostoria Pressed Steel Corp., The, Fostoria, Ohio.
Loomis-Manning Filter Distributing Co., Philadelphia, Pa.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.

Finders, Center

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Stanley Electric Tool Division, New Britain, Conn.

Fire Clay

Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N. Y.

Fire Engines

(See "Engines, Fire")

Fire Extinguishers

(See "Extinguishers, Fire")

Fire Fighting Safety Outfits, Asbestos

(See "Safety Outfits, Fire Fighting, Asbestos")

Fire Pots

(See "Furnaces, Soldering")

First Aid Cabinets and Equipment

(See "Cabinets and Equipment, First Aid")

Fittings, Air Brake

Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Parker Appliance Co., The, Cleveland, O.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Ammonia and Brine

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Milwaukee Steam Appliance Co., West Allis, Wis.
New York Brass Foundry Co., New York.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.

Fittings and Couplings, Gasoline Pipe

American Injector Co., Detroit, Mich.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chase Brass & Copper Co., Waterbury, Conn.

Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
General Brass Co., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Brass Co., Port Huron, Mich.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O. (Copper tube)
Ralco Manufacturing Co., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Hose, Brass

Acheson Manufacturing Co., Rankin, Pa.
Alemite Corp., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
Allen, W. D., Mfg. Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Co., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Morganmade, Inc., Keene, N. H.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Paasche Airbrush Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Thermoid Rubber Co., Trenton, N. J.
Walworth Co., New York, N. Y.

Fittings, Irrigation

(See "Valves and Fittings, Irrigation")

Fittings, Oil Fixture

Alemite Corp., Chicago, Ill.
Crane Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Acid Resisting

Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National Lead Co., New York, N. Y.
New York Brass Foundry Co., New York.
Northwest Lead Co., Seattle, Wash.
Perkes, Charles Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Schutte & Koerting Co., Philadelphia, Pa.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Newbury Manufacturing Co., Monroe, N. Y.
Newman Bros., Inc., Cincinnati, Ohio.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Fittings, Pipe and Tubing, Brass, Fine Thread

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker Appliance Co., The, Cleveland, O.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Fittings, Pipe, Brass, Tinned

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
National Lead Co., New York, N. Y.
New York Brass Foundry Co., New York.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Tube-Turns, Inc., Louisville, Ky.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

The

"Index to Advertisers"

will be found on Pages 18, 19 and 20

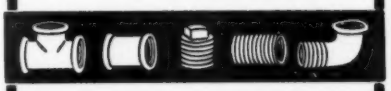
Imperial
BRASS FITTINGS

The Profitable Line for Distributors because of its

COMPLETENESS
HIGH QUALITY
STANDARD PACKAGING
PROMPT SERVICE
REPUTATION

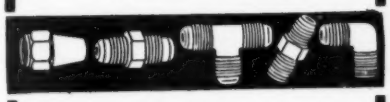
Imperial Brass Fittings include these five specialized groups:

Pipe Fittings

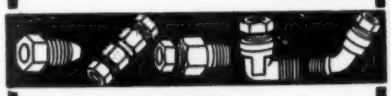


Compression Fittings

S. A. E. Fittings



Hi-Duty Fittings



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Rickersberg Brass Co., The, Cleveland, O.
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Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
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Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Fittings, Pipe, Galvanized Iron

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Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
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Walworth Co., New York, N. Y.

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Grabler Mfg. Co., Cleveland, Ohio.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Semler Co., Jeannette, Pa.
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Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
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Nugent, Wm. W., & Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Titeflex Metal Hose Co., Newark, N. J.
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Shaw Kendall Enginering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kuhns Bros. Co., Dayton, Ohio.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., Boston, Mass.

Flanges, Pipe, Curved

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Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos. Mfg. Co., Burlington, N. J.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles Co., Philadelphia, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Floor

Atlas Brass Foundry Co., The, Columbus, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
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Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Moore Flange Corp., New York, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Nunn Brass Works, Rochester, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Robinson Mfg. Co., The, Cleveland, Ohio.
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Malleable Iron

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Crane Co., Chicago, Ill.
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Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
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Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

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Bonney Forge & Tool Works, Allentown, Pa.
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M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Semi-Steel

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Fisher Governor Co., The, Marshalltown, Iowa.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Steel

American Chain Co., Inc., Bridgeport, Conn.
American Rolling Mill Co., The, Middletown, Ohio.
Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Mountville Mfg. Co., Mountville, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Flanges, Pipe, Union

(See "Unions, Flange")

Flanges, Pipe, Wrought Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Tank

Allis-Chalmers Manufacturing Co., West Allis, Wis.

Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Welding

Air Reduction Sales Co., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.

Flares, Truck

Anthes Force Oiler Co., Fort Madison, Iowa.
Embury Manufacturing Co., Warsaw, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.

Flexible Shaft Machines

(See "Machines, Flexible Shaft")

Flexible Shafts

(See "Shafts, Flexible")

Floats, Aluminum

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Empire Level Manufacturing Co., Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Floats, Copper

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Metal Spinning Co., Inc., Detroit.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Wright-Austin Co., Detroit, Mich.

Floats, Steel

Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Toledo Pressed Steel Co., The, Toledo, Ohio.
Wright-Austin Co., Detroit, Mich.

Floats, Steel, Stainless

Harris, Arthur, & Co., Chicago, Ill.

Flux, Brazing

(See "Compounds and Fluxes, Brazing")

Flux, Foundry and Welding

Air Reduction Sales Co., New York, N. Y.
American Solder & Flux Co., Philadelphia, Pa.
Anti-Borax Compound Co., Fort Wayne, Ind. (Welding flux only)
Atkins, E. C., and Co., Indianapolis, Ind.
Atlas Foundry Co., Irvington, N. J.
Bastian-Blessing Co., Chicago, Ill.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Chapin, W. R., Co., The, Indianapolis, Ind. (Welding compound)
Colmonoy, Inc., Las Nietos, Calif.
Consolidated Metal Corp., Detroit, Mich.
Cortland Welding Compound Co., Cortland, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln, Electric Co., The, Cleveland, O.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.

Flux, Galvanizing

Consolidated Metal Corp., Detroit, Mich.
Garden City Laboratory, Inc., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
United American Metals Corp., Brooklyn.

Flux, Soldering—Paste, Stick and Liquid

American Solder & Flux Co., Philadelphia.
Atkins, E. C., and Co., Indianapolis, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Consolidated Metal Corp., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dunton, M. W., Co., The, Providence, R. I. (Liquids, salts and wire solder)
Everhot Mfg. Co., Maywood, Ill.
Garden City Laboratory, Inc., Chicago, Ill.
Gardiner Metal Co., Chicago, Ill.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Great Lakes Chemical Works, Detroit.
Highland Electro Chemcal Mfg. Co., Connellsville, Pa.
Johnson Mfg. Co., Chicago, Ill.
Kester Solder Co., Chicago, Ill.
McGill Manufacturing Co., Valparaiso, Ind.
National Lead Co., New York, N. Y.
Ruby Chemical Co., The, Columbus, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Forges and Furnaces, Brazing

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn.
Hones, Chas. A., Baldwin, N. Y.
Ingersoll-Rand Co., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.

Forges, Brazing, Saw

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
R. S. Products Corp., Philadelphia, Pa.

Forges, Electric

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
R. S. Products Corp., Philadelphia, Pa.

Forges, Gas and Oil

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
Diamond Iron Works, Inc., Minneapolis.
Gardner-Denver Co., Quincy, Ill.
R. S. Products Corp., Philadelphia, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Forges, Portable

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
R. S. Products Corp., Philadelphia, Pa.

Forges, Rivet and Bolt

(See "Furnaces or Forges, Rivet and Bolt Heating")

Forks

(See "Hoes, Rakes and Forks")

Fountains, Drinking

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
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Ford's Porcelain Works, Perth Amboy, N. J.
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Fountains, Wash, Industrial

Bradley Washfountain Co., Milwaukee.

Frames, Binder, Power Transmission

Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Frames, Grindstone

Standard Electrical Tool Co., The Cincinnati, Ohio.
Western Products, Inc., Newcastle, Ind.

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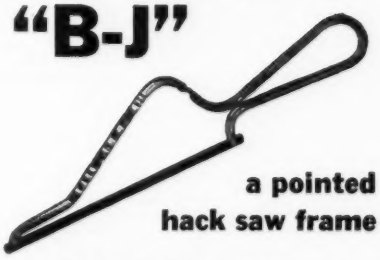
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Starrett, L. S., Co., The, Athol, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Ruleta Co., Inc., The, New York, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Threadwell Tap & Die Co., Greenfield, Mass.
Washburn Co., The, Worcester, Mass.

Frames, Manhole and Handhole

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

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Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
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Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunter, James, Machine Co., North Adams, Mass.
Link-Belt Co, Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Frames, Trap

(See "Covers and Frames, Trap")

Frames, Wall

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Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
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Frames, Water Meter

(See "Covers and Frames, Water Meter")

Friction Clutches

(See "Clutches, Friction")

Frictions, Rawhide

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Hudson-Sharp Machine Co., Green Bay, Wis.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
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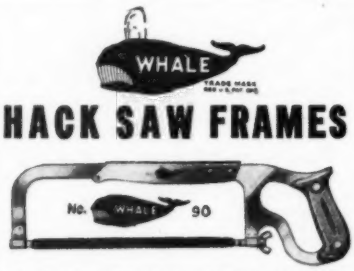

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Webster Mfg. Co., Chicago, Ill.
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(See "Forges and Furnaces, Brazing")

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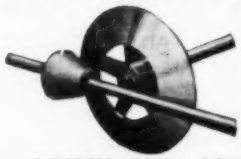

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Aeroil Burner Co., Inc., West New York, N. J.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
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Bernz, Otto, Co., Inc., Rochester, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
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Trent, Harold E., Co., Philadelphia, Pa.
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Unique Manufacturing Co., Inc., Chicago.

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Hones, Chas. A., Inc., Baldwin, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Pawtucket Manufacturing Co., Pawtucket, R. I.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

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Detroit Torch & Manufacturing Co., Detroit, Mich.
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Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Johnson Mfg. Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
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Jefferson Elec. Co., Bellwood, Ill.
Royal Electric Co., Inc., Avon, Mass.
Trico Fuse Mfg. Co., Milwaukee, Wis.

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(See "Links, Fusible")

Gages

(See "Gauges")

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(See "Oil and Gas Well Supplies, Rubber")

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Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
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Keating, E. F., Co., New York, N. Y.
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Linear Packing & Rubbing Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Co. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
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Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Asbestos-Metallic

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
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Gaskets, Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
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Darcoid Co., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
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Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
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Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co., Chicago, Ill.
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Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets—Brass, Bronze, Copper, Lead, Steel

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Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Manufacturing Co., Chicago, Ill.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston, Mass.
Metallo Gasket Co., New Brunswick, N. J.
National Lead Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
U. S. Mineral Wool Co., New York, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Cork

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork Products Co., Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Wilcox Manufacturing Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Fitzgerald Manufacturing Co., The, Torrington, Conn.
Jenkins Bros., New York, N. Y.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Cylinder

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Felt

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Manufacturing Co., The, Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Booth Felt Co., Inc., Brooklyn, N. Y.
Coleman, Allan J., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Gauge Glass

(See "Washers and Gaskets, Gauge Glass")

Gaskets—Leather, Fibre and Paper

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Manufacturing Co., The, Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather and rawhide)
Continental Diamond Fibre Co., Newark, Del.
Couse & Bolten, Inc., Newark, N. J. (Leather)
Darcoid Co., The, New York, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa. (Fibre and paper only)
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
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Victor Mfg. & Gasket Co., Chicago, Ill.
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Whiting Leather & Belting Co., Long Island City, N. Y.

Gaskets, Manhole and Handhole

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
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Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
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Jenkins Bros., New York, N. Y.
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Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
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Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
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Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets, Metallic

Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Couse & Bolten, Inc., Newark, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Janos Asbestos Co., New York, N. Y.
Key Co., East St. Louis, Ill.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Metallo Gasket Co., New Brunswick, N. J. (Also asbestos filled and asbestos cord inlaid)
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Oil

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Endura Mfg. Corp., Quakertown, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Rubber

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock, Packing Co., The, Palmyra, N. Y.
General Electric Co., Schenectady, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F. Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., New York, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miller Rubber Co., The, Akron, Ohio.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Younstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets, Tubular

Belmont Packing & Rubber Co., Philadelphia, Pa.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
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Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
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Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gasoline Storage Outfits

(See "Storage Outfits, Gasoline")

Gauges, Ammonia

Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Parks, Harry S. Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.

Gauges, Back, for Band Saws

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Gauges, Bit and Drill

Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Gauges, Boiler Water Line

American Injector Co., Detroit, Mich.
Bordo, L. J., Co., Inc., Glenside, Pa.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C. Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Mercoid Corp., The, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Gauges, Butt, Door Hanging and Mortising

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Gauges, Caliper

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Center

Brown & Sharpe Mfg. Co., Providence, R. I.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Chamferer

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.

Gauges, Circumference

Lufkin Rule Co., The, Saginaw, Mich.

Gauges, Compound

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Grinnell Co., Inc., Providence, R. I.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Cutting

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.

Gauges—Cylindrical, Plug and Ring

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I. (Cylindrical only)
General Electric Co., Schenectady, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Depth

Ames, B. C., Co., Waltham, Mass.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Parks, Harry S. Co., Philadelphia, Pa.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gauges, Dial

Ames, B. C., Co., Waltham, Mass.
Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Differential Pressure

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock,Co. Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S. Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Draft

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Meriam Co., The, Cleveland, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Gauges, Duplex Pressure

Bristol Co., The, Waterbury, Conn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Parks, Harry S., Co., Philadelphia, Pa.
United States Gauge Co., New York, N. Y.

Gauges, Expansion Tank

American Injector Co., Detroit, Mich.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Tank, Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Parks, Harry S., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roberts Brass Mfg. Co., The, Detroit, Mich.

Gauges, Feeler or Thickness

Ames, B. C., Co., Waltham, Mass.
Atlas-Ansonia Co., New Haven, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Millers Falls Co., Greenfield, Mass.
National Motor Bearing Co., Inc., Oakland, Calif.
Snap-On Tools, Inc., Kenosha, Wisconsin.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Gauges, Height

Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Hydraulic

Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Lourie Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Gauges, Inside Caliper

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Williams, J. H., & Co., New York, N. Y.

Gauges, Limit

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Brown, R. H., & Co., New Haven, Conn.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McNeill Engineering Equipment Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N.Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Wright-Austin Co., Detroit, Mich.

Gauges, Locomotive

Bordo, L. J., Co., Inc., Glenside, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sargent Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

Gauges, Loss of Head and Rate of Flow

Foxboro Co., The, Foxboro, Mass.
Parks, Harry S., Co., Philadelphia, Pa.

Gauges, Lumber

Gustafson & Scott Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.

Gauges, Marking and Mortising, Carpenters'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, New Britain, Conn.

Gauges, Mercury

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.

Gauges, Micrometer Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Oil, Sight Feed

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.

General Electric Co., Schenectady, N. Y.
Gits Bros., Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
United States Gauge Co., New York, N. Y.

Gauges, Oil Level, for Dynamos

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.

Gauges, Ounce Graduation

Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
United States Gauge Co., New York, N. Y.

Gauges, Oxygen and Acetylene

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco, Calif.

Gauges, Plane

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Gauges, Planer and Shaper

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Pressure

Alemite Corporation, Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Brunner Manufacturing Co., Utica, N. Y.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Sargent Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Pressure and Vacuum, Compound

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Pressure, Electrical Alarm

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Gauges, Pressure, Recording

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges—Rack, Pinion and Gear Tooth

Ames, B. C., Co., Waltham, Mass.
Federal Products Corp., Providence, R. I.

Gauges, Radius

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Rolling Mill

Brown & Sharpe Mfg. Co., Providence, R. I.

Gauges, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Simonds Saw and Steel Co., Fitchburg, Mass.

Gauges, Saw, Swing, Automatic

Covel-Hanchett Co., Big Rapids, Mich.

Gauges, Scratch

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw and Wire

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Rawlplug Co., Inc., New York, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw Pitch or Thread

Bath, John & Co., Inc., Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Snap

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Stair

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Steam, Pyrometer

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Gauges, Surface

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Tank, Indicator

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn. (For aircraft, etc.)
Viking Pump Co., Cedar Falls, Iowa.

Gauges, Tap

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Taper

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Telescoping

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.

BOILER FITTINGS

Water Gauges, Gauge Cocks, Fusible Plugs. Designed to meet the specifications of the ASME, the Massachusetts Boiler Code, the Steamboat Inspection Service of the United States Department of Commerce. Fusible Plugs are made in accordance with the above specifications, and should be replaced in every boiler each year. Water Gauges and Gauge Cocks of highest quality of workmanship, material, and finish. Moderately priced with attractive discounts, they make a profitable and satisfactory line to handle.

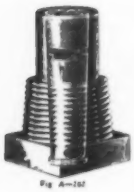

Fig A-162

AMERICAN INJECTOR CO.
DETROIT, MICH.

Gauges, Test

Ames, B. C., Co., Waltham, Mass.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Boekel, Wm., & Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Pratt & Whitney, Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
United States Gauge Co., New York, N. Y.

Gauges, Thickness

(See "Gauges, Feeler or Thickness")

Gauges, Track

Aldon Co., The, Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Gauges, Traction Engine

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

Gauges, Vacuum

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
National Gauge Co., Brooklyn, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Uehling Instrument Co., Paterson, N. J.

Gauges, Water

(See also "Columns, Water")

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sargent Co., Chicago, Ill.

FOR WATER GAUGES

No. 5 Water Gauge

—and

Syphons
Gauge Cocks
Air Valves
Pop Safety & Relief Valves
Boiler Draw-Off Cocks
Fusible Plugs

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insure satisfied customers!

Castings of virgin metals and uniform metal lines provide maximum strength. Thorough tests and inspection before shipment eliminate "leakers".

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In the "Essex" line there is a correct gauge for every requirement.

Refinements in details — handles — dripless drain cock —stems assembled with formed asbestos packing rings—make them ready for instant use. No bother—no expense.

Backed by long experience in manufacture of steam specialties — lubricators, oil cups, grease cups, oil pumps, etc., etc.

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Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Gauges, Water, Quick Closing

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Gauges, Water, Safety

Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J. Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia.

Gauges, Welding

(See "Gauges, Oxygen and Acetylene")

Gauges, Wire

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Federal Products Corp., Providence, R. I.

Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gear Blanks

(See "Blanks, Gear")

Gear Cutting Attachments

(See "Cutting Attachments, Gear")

Gear Cutting Machines

(See "Machines, Cutting, Gear")

Gear Testing Machines

(See "Machines, Gear Testing")

Gearing, Friction

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schultz, A. L., & Son, Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Gears and Pinions, Bakelite

Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass. (Non-metallic)
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springfield, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

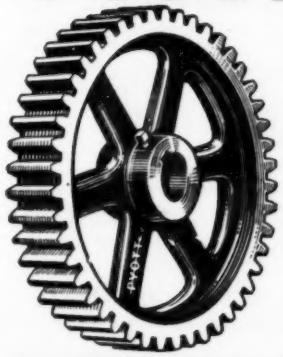
Gears and Pinions, Brass and Bronze

Aldrich Pump Co., The, Allentown, Pa.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Ampco Metal, Inc., Milwaukee, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Messmer Brass Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons, Co., Chambersburg, Pa.

Gears and Pinions, Cast Iron and Steel

Aldrich Pump Co., The, Allentown, Pa.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bethlehem Steel Co., Bethlehem, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
DeLaval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitz Water Wheel Co., Hanover, Pa.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone-Hindley Gear Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Ohio Forge & Machine Corp., Cleveland, O.

PYOTT GEARS



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Engineering Sales Offices: Cincinnati, Cleveland, New York, Philadelphia, Buffalo, Pittsburgh, New Orleans, San Francisco, Charlotte, Milwaukee.

Oliver Machinery Co., Grand Rapids, Mich.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Schultz, A. L., & Son, Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Waldron, John, Corp., New Brunswick, N. J.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Gears and Pinions, Fibre

American Hoist & Derrick Co., St. Paul, Minn.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Cresson-Morris Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Horsburgh & Scott Co., The, Cleveland, O.
Illinois Gear & Machine Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Gears, Mortise

Bond, Charles, Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Foote Bros. Gear & Machine Co., Chicago.
Medart Co., The, St. Louis, Mo.
Philadelphia Gear Works, Philadelphia, Pa.

Gears and Pinions, Rawhide

American Hoist & Derrick Co., St. Paul, Minn.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., Cleveland, Ohio.
Illinois Gear & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Manufacturers Gear & Machine Co., Cincinnati, Ohio.
Medart Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Gears, Reverse

Barco Manufacturing Co., Chicago, Ill.
Bond, Charles, Co., Philadelphia, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Ohio Forge & Machine Corp., Cleveland, O.
Philadelphia Gear Works, Philadelphia, Pa.
Twin Disc Clutch Co., Racine, Wis.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Gears, Speed Reduction

(See "Reducers, Speed")

Generating Sets, Electric

(See "Sets, Generating, Electric")

Generators, Acetylene, for Welding and Cutting

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Harris Calorific Co., The, Cleveland, Ohio.
Imperial Brass Mfg. Co., Chicago.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Torit Mfg. Co., St. Paul, Minn.

Generators, Electric

(See "Motors and Generators, Electric")

Generators, Hot Water

Devlin, Thos., Mfg. Co., Burlington, N. J.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.

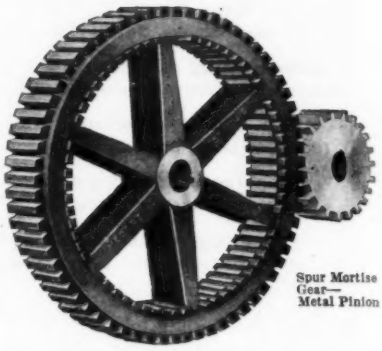
Gib Keys

(See "Keys, Gib")

Glass Protectors, Gauge

(See "Guards, Glass, Gauge")

MEDART



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Medart Mortise Gears are mortise wheels with wooden teeth and a matching pinion with metal teeth. Both wheels have standard keyseats.

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Glasses, Gauge

Advance Packing & Supply Co., Chicago.
American Injector Co., Detroit, Mich.
Bache, Semon, & Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chesterton, A. W., Co., Boston, Mass.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Durabla Manufacturing Co., New York.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, Millville, N. J.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Macbeth-Evans Glass Co., Charleroi, Pa.
Milwaukee Valve Co., Milwaukee, Wis.
Moeller Instrument Co., Inc., Brooklyn.
Penberthy Injector Co., Detroit, Mich.

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Present torch equipment need not be discarded in order to take advantage of SF economy. Safer, more portable and convenient than cylinders. Approved by BOTH Underwriters' Laboratories and the Associated Factory Mutual Fire Insurance Companies' Laboratories.

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Roberts Brass Mfg. Co., The, Detroit, Mich.
Sargent Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Wright-Austin Co., Detroit, Mich.

Glasses, Oil Cup and Lubricator

Advance Packing & Supply Co., Chicago.
American Injector Co., Detroit, Mich.
Bache, Semon, & Co., New York, N. Y.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, Millville, N. J.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Macbeth-Evans Glass Co., Charlerol, Pa.

Gloves and Mittens, Protective

Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Rubber Co., The, Akron, O.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Ideal Face Shield Co., The, Columbus, O.
Industrial Gloves Corp., Danville, Ill.
Janos Asbestos Co., New York, N. Y.
K-G Welding & Cutting Co., Inc., New York.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Linde Air Products, Inc., The, New York.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Rubberwear Glove Co., Akron, Ohio.
Safety Equipment Service Co., Cleveland.
Spartan Glove Co., The, Dayton, Ohio.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Gloves and Mittens, Working

Chicago Eye Shield Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Mine Safety Appliances Co., Pittsburgh, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Rubberwear Glove Co., Akron, Ohio.
Safety Equipment Service Co., Cleveland.
Spartan Glove Co., The, Dayton, Ohio.

Street Addresses or Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

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"CORNING" Standard Gauge Glasses are made especially for use on low pressure boilers, coffee urns, as liquid level indicators on tanks and vats and for similar purposes, with steam pressures up to 200 lb. per square inch for short lengths.

Other Corning Products include:

"PYREX" Plain and Reflex Gauge Glasses —flat glasses for use with steam pressures over 500 lb. per sq. in.

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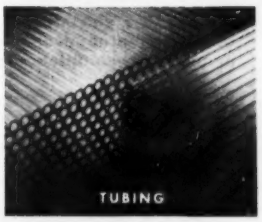
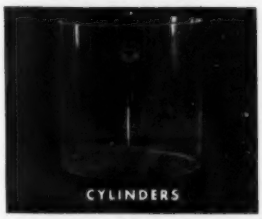
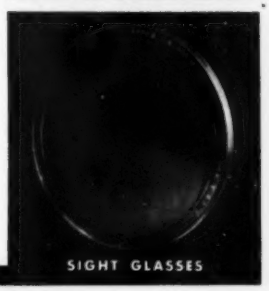
"PYREX" Sight Glasses—Tubing—Cylinders—and Heat Resistant Sheet Glass.







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Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Willson Products, Inc., Reading, Pa.

Gongs and Bells

Federal Electric Co., Inc., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hodgman Mfg. Co., Taunton, Mass. (Water motor gongs)
Mine Safety Appliances Co., Pittsburgh, Pa.
Perkins Marine Lamp Corp., Brooklyn.
Reiter, G. C., Canton, Ohio.
Rope Fire Escape Co., Philadelphia, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Signal Electric Mfg. Co., Menominee, Mich.
Wall P., Mfg. Supply Co., Pittsburgh, Pa.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Goosenecks

Acheson Manufacturing Co., Rankin, Pa.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Friedrich & Dimmock, Millville, N. J. (Glass)
Hays Manufacturing Co., Erie, Pa.
National Lead Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.

Gouges

Disston, Henry, & Sons, Inc., Philadelphia.
Greenlee Bros. & Co., Rockford, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Vulcan Tool Mfg. Co., Quincy, Mass.

Gouges, Turning

(See "Chisels and Gouges, Turning")

Governors, Air Compressor

Curtis Pneumatic Machinery Co., St. Louis, Mo.
De Laval Steam Turbine Co., Trenton, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Gardner-Denver Co., Quincy, Ill.
Hennebohle, Frank, Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.

Governors, Belt

Dodge Manufacturing Corp., Mishawaka, Ind. (Roller bearing)

Governors, Boiler Feed

Burrows, F. A., Mfg. Co., York, Pa.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Syracuse Steam Generator, Inc., Syracuse.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Governors, Engine

Filer & Stowell Co., The, Milwaukee, Wis.
Fisher Governor Co., The Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Gardner-Denver Co., Quincy, Ill.
Judson Governor Co., The, Rochester, N.Y.
Kieley & Mueller, Inc., New York, N. Y.
Massey Machine Co., Watertown, N. Y.

Governors, Fan Engine

(See "Regulators, Controllers or Governors—Fan Engine")

Governors or Regulators, Pump

Automatic Primer Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Cardwell Machine Co., The, Richmond, Va.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N.J.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.

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Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mueller Co., Decatur, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watson & McDonald Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Governors, Vacuum Pump

Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Gardner-Denver Co., Quincy, Ill.
Hennebohle, Frank, Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Roots-Connersville Blower Corp., Connersville, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Graphite, Boiler

Dixon, Joseph, Crucible Co., Jersey City, N. J.
Superior Flake Graphite Co., Chicago, Ill.
Sauereisen Cements Co., Pittsburgh, Pa.
United States Graphite Co., The, Saginaw, Mich.

Graphite Lubricants

(See "Greases, Graphite," and "Oil, Penetrating, Graphite,")

Graphite, Other Types

Dixon, Joseph, Crucible Co., Jersey City, N. J.
Key Co., East St. Louis, Ill.
Scranton Pump Co., The, Scranton, Pa.
Superior Flake Graphite Co., Chicago, Ill.
Thomas Grate Bar Co., Birmingham, Ala.
United States Graphite Co., The, Saginaw, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.

Grease and Oil Extractors

(See "Extractors, Grease and Oil")

Grease and Coating, Gear and Pinion

Alemite Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Cook's Adam, Sons, Inc., Linden, N. J.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Lubriplate Corp., New York, N. Y.
Master Lubricants Co., Philadelphia, Pa.
Standard Oil Co. of New York, The, New York, N. Y.

(Continued on page 144)

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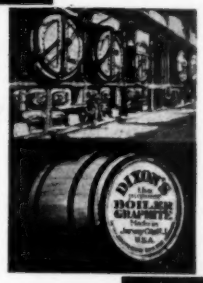
WATERPROOF GRAPHITED GREASE →

↑ FLAKE LUBRICATING GRAPHITE Large lustrous flakes (No. 1) Powdered flakes (No. 2)



PIONEER BOILER GRAPHITE →

by

DIXON

JOSEPH DIXON CRUCIBLE CO.
Jersey City, New Jersey

↑ "AUTO-MARINE" WATER PUMP GRAPHITED GREASE

← L & P LUBRICATING & PENETRATING GRAPHITED OIL

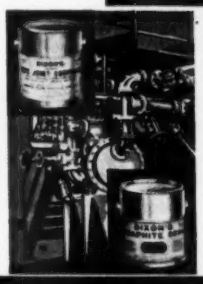
← CUP & PRESSURE GUN GRAPHITED GREASES for gears and bearings

GRAPH-AIR GUN →

SEND FOR CATALOG

MICROFYNE FLAKE GRAPHITE (Microscopic flakes) →

GRAPHITE EXCELLENCE D X N SINCE 1827



← PIPE JOINT GRAPHITED COMPOUND Not soluble in water

DISTRIBUTED THROUGH THE SUPPLIES TRADE

← GRAPHITE SEAL Not soluble in oil

GRAPHITE IN EVERY FORM FOR EVERY USE

Distributors---

Are ALL Your Salesmen
Receiving MILL SUPPLIES regularly?

If not---

Why not take advantage of our interesting group subscription plan for mill supply houses?

MILL SUPPLIES
"The Magazine of Industrial Distribution"

"SUPERFLAKE"

GRAPHITE

"SUPERFLAKE" Flake Graphite

is prepared in two sizes for general use, viz.:

No. 1 "Superflake" Graphite (Large Flake), for use on heavy or loose bearings, cylinders of blowing engines, packings, gaskets, flanges, etc.

No. 2 "Superflake" Graphite (Small Flake), for use on close fitting bearings, such as engine cylinders, valves and valve motions, packings, gaskets, pipe, fittings, etc.

When ordering, buyer should specify whether No. 1 (Large Flake) or No. 2 (Small Flake) is wanted.

No. 590 "Superflake" Graphite is in a class by itself for use on spindles, bobbins, and other parts of textile machinery, firearms, locks, engine cylinders, talking machines, etc.

"SUPERFLAKE" Amorphous Graphite

It is the best quality of Amorphous Lubricating Graphite for use dry or mixed with oils and greases.

"Superflake" Graphites are packed as follows:

½-lb. cans, 36 to the case
1-lb. cans, 36 to the case
5-lb. cans, 12 to the case
10-lb. cans, 6 to the case
25-lb. containers
50-lb. containers
100-lb. containers
Half-barrels (about 200 lbs.)
Barrels (about 400 lbs.)

Graphite Paint

"Superflake" Graphite Paint protects all metal and other surfaces. It is prepared in the following colors: **Natural Graphite Color, Jet Black, Dark Red, Olive Green.**

Packed as follows:

½-gal. cans, 12 to the case
1-gal. cans, 6 to the case
5-gal. cans
Half-barrels
Barrels

"SUPERFLAKE" Graphite Cup Greases

Number 0 consistency is very soft, number 3 medium, and number 5 extra heavy. Number 3 is recommended for general use and number 5 where a heavier consistency is required.

Packed as follows:

1-lb. cans, 36 to the case
5-lb. cans, 12 to the case
10-lb. cans, 6 to the case
25-lb. containers
50-lb. containers
100-lb. containers
Half-barrels
Barrels

Other "SUPERFLAKE" Products

PIPE JOINT COMPOUND for Oil and Water Joints

COLLOIDAL GRAPHITE

PENETRATING OIL

RUST SOLVENT

Distributors will find "Superflake" Products an easy selling and profitable line. Ask for full information.

SUPERIOR FLAKE GRAPHITE CO.
33 South Clark Street
Chicago, Ill.

Grease and Coating, Gear and Pinion

(Continued from page 142)

Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
United States Graphite Co., The, Saginaw, Mich.

Grease, Lubricating

(See "Oil and Grease, Lubricating")

Greases, Graphite

Baum's Castorine Co., Rome, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
National Carbon Co., Inc., Carbon Sales Division, Cleveland, Ohio.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., The, Saginaw, Mich.

Grinder—Buffer, Combination

(See "Buffer-Grinder, Combination")

Grinders, Aerial

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Flexible Shafts, Inc., Binghamton, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Grinders, Angle Plate or Parallel

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Gardner Machine Co., Beloit, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Bench and Floor, Belt Driven

Atkins, E. C., and Co., Indianapolis, Ind.
Blount, J. G., Co., Everett, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Cutter Machine Co., St. Louis, Mo.
Delta Mfg. Co., Milwaukee, Wis.
Fidelity Electric Co., Lancaster, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Norton Co., Worcester, Mass. (Floor type only)
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Walls Sales Corp., New York, N. Y.
Western Hdwe. Mfg. Co., Milwaukee, Wis.

Grinders, Casting, Heavy Duty

Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower & Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Dillon Electric Co., The, Canton, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Norton Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Grinders, Center

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Grinders, Centerless

Detroit Machine Tool Co., Detroit, Mich.
Luther Grinder & Tool Co., Milwaukee.

Grinders, Chaser

Geometric Tool Co., The, New Haven, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Chisel

Black & Decker Mfg. Co., The, Towson, Md.
Hisey-Wolf Machine Co., The, Cincinnati.

GRINDERS
for
MACHINE SHOP
FACTORY or MILL

also
BUFFING or POLISHING LATHES
•
BENCH or COLUMN BELT DRIVEN

SEPARATE or SELF-CONTAINED COUNTERSHAFTS
PLAIN or ANTI-FRICTION BEARINGS

MR. DISTRIBUTOR!
Our large variety of sizes and styles makes it possible to select the proper item for each of your customers' needs

CUTTER MACHINE CO.
3727 Commonwealth Ave.
ST. LOUIS, MO.

MFRS. OF ST. LOUIS, WESTERN AND CRESCENT GRINDERS AND POLISHING MACHINES

Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Mummert-Dixon Co., Hanover, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Grinders, Column

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Delta Mfg. Co., Milwaukee, Wis.
Fidelity Electric Co., Lancaster, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Commutator

Ideal Commutator Dresser Co., Sycamore, Ill.
Jordan Bros., Inc., New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Crankshaft

Norton Co., Worcester, Mass.

Grinders, Cutter and Reamer

Barber-Colman Co., Rockford, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Brown & Sharpe Mfg. Co., Providence.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Norton Co., Worcester, Mass.
Oesterlein Machine Co., The, Cincinnati, O.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Cylinder

Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Keystone Mfg. Co., Buffalo, N. Y.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Sunnen Products Co., St. Louis, Mo.

Grinders, Cylindrical

Brown & Sharpe Mfg. Co., Providence.
Dumore Co., The, Racine, Wis.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corporation, Orange, N. J.
Norton Co., Worcester, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Die

Chicago Wheel & Mfg. Co., Chicago, Ill.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Flexible Shafts, Inc., Binghamton, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati.
Landis Machine Co., Waynesboro, Pa.
Layth-Grindar Corporation, Orange, N. J.
Mall Tool Co., Chicago, Ill.
Onsrud Machine Works, Inc., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Van Dorn Electrical Tool Co., The, Towson, Md.

Grinders, Disc

Besly, Charles H., & Co., Chicago, Ill.
Clark, James, Jr., Electric Co., Louisville, Ky.
Hisey-Wolf Machine Co., The, Cincinnati.
Jones Superior Machine Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electrical Tool Co., The, Towson, Md.

Sensational
ELECTRIC TOOL

Are you prepared to demonstrate this "constant service" tool that is being adopted by industry everywhere? Nothing else like it—new design—modern materials—revolutionary performance.

With a speed of 25,000 r.p.m. and ample power, this compact, easy-to-handle production tool does 1,001 jobs with astounding savings in time and labor. Weighs 12 ounces. 6" long, 1⅝" in diameter Fastest and most powerful portable tool for its weight ever developed. Price $18.50 complete with 6 Chicago Mounted Wheels.

Our advertising in leading industrial publications is directing inquiries to you for demonstrations.

Order a Demonstrator Outfit Today
and Cash in on this new Tool

CHICAGO WHEEL & MFG. COMPANY
112 S. Aberdeen St. Chicago, Ill.

Walls Sales Corp., New York, N. Y.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Grinders, Drill

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Wappat, Inc., Pittsburgh, Pa.

Grinders, Electric, Bench and Floor

Atkins, E. C., and Co., Indianapolis, Ind.
Baldor Electric Co., St. Louis, Mo.

Manufacturers'

Street Addresses

will be found in the

"Names and Addresses"

Section

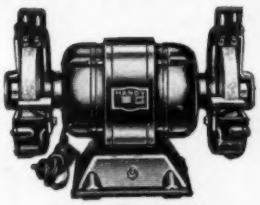
Handy

Ball Bearing Totally Enclosed

Heavy Duty

BENCH AND PEDESTAL

GRINDERS



Type "X" 8 inch

Heavy duty, ball bearing, ½ H. P. motor. 8" by 1" wheels, dust sealed bearings. Lubricate once a year. Low current cost.

Price includes cast iron guards, tool rests, wheels, cord and plug, switch in base. Guaranteed one year.

3450 R. P. M. price..... $50.00
1725 R. P. M. price.....$44.00

WRITE FOR BULLETINS on complete line of "Handy" bench and pedestal grinders and buffers.

BALDOR ELECTRIC COMPANY
4364 Duncan Avenue ST. LOUIS, MO.

"Van Dorn"

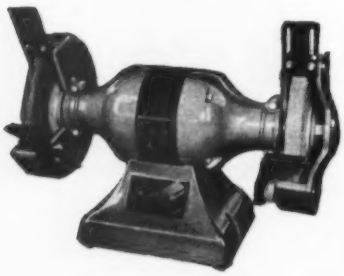
Electric Bench Grinders

Four Units, ranging in size and price—

6" Special
6" Heavy Duty
7" and 10" Wide type

•

POWERFUL WELL-BALANCED



The VAN DORN Electric Tool Co.
TOWSON, MD.

Behr-Manning Corp., (Norton Abrasives). Troy N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Larcaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo. (Floor only)
Delta Mfg. Co., Milwaukee, Wis.
Diehl Mfg. Co., Elizabethport, N. J.
Dillon Electric Co., The, Canton, Ohio.
Dumore Co., The, Racine, Wis.
Fidelity Electric Co., Lancaster, Pa.
Forbes & Myers, Worcester, Massachusetts
Gilbert, J. E., Grinder Co., Milwaukee.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Kingston-Conley Electric Co., Jersey City, N. J.
Louisville Electric Manufacturing Co., Louisville, Ky.
Luther, Inc., Milwaukee, Wis.
Mall Tool Co., Chicago, Ill.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Oliver Machinery Co., Grand Rapids, Mich.
Onsrud Machine Works, Inc., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers Inc., Hoist & Crane Division, Springfield, Ohio.
Rockford Machine Tool Co., Rockford, Ill.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Electrical Motors, Inc., Los Angeles, Cal.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Driver 7" Grinder
Leader No. 3*

$37.50
as shown

**Advance sales lead us to believe that this is one of the many Driver Tools which will lead the power tool field for the coming year. See other advertisements this issue. (Pages 183 & 185.)*

This new ½ H.P. Ball Bearing grinder has outstanding features which assure utmost in utility and permanent performance.

Motor is capacitor type with plenty of overload capacity to handle all kinds of heavy work, in constant use. It has no centrifugal starting switch. Instead it has a high grade condenser mounted in the base. Operating speed is 3500 R.P.M. It is equipped with large grease-sealed SKF Ball Bearings fully protected from dirt and dust. Has non-shatterable glass shields and cooling cup regular equipment.

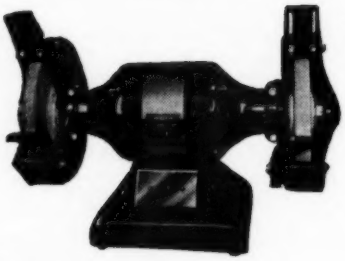
For other Driver grinders and complete information write Dept. M83.

WALKER-TURNER CO., INC.
Plainfield New Jersey

BLACK & DECKER

•

Electric Bench Grinders



6", 7" and 10" sizes

Powerful, balanced Motors

Ball-bearings— wide frame

The
Black & Decker Mfg. Co.
Towson, Md.

ELECTRIC GRINDERS *All Ball Bearing*

You can fill practically every grinding need with U. S. Electric Grinders. Our very complete line includes portable, bench, pedestal, tool post, flexible shaft, internal, surface, adjustable speed, high speed and snagging grinders, etc.

U. S. Grinders are thoroughly modern in design, made of the very best materials, according to the strictest standards of manufacture. They are efficient, rugged, low cost in operation.

Immediate attention will be given distributors' orders—and we invite an early investigation of the sales and profit opportunities this long established line offers you.

Model 10 (Illustration shows 5 H.P., 14" x 3")

Capable of heavy duty service, and rated for continuous service at full load with a temperature rise of 40 deg. Equipped with remote control. Furnished for 110, 220, 440 or 550 volts, alternating or direct current.

The UNITED STATES ELECTRICAL TOOL CO.

2479 West Sixth St. Dept. H Cincinnati, Ohio

IN CANADA—Maple Leaf Electric Tools, Ltd., Toronto

GOOD ELECTRIC TOOLS SINCE 1897

Van Norman Machine Tool Co., Springfield, Mass.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Grinders, Electric, Portable

Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Diehl Mfg. Co., Elizabethport, N. J.
Dumore Co., The, Racine, Wis.

VAN DORN

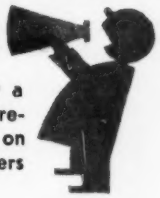
Portable Electric Grinders

4", 5" & 6" Sizes

Increased Power Ball-Bearings

The Van Dorn Electric Tool Co.
TOWSON, MD.

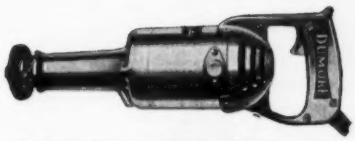
NO SHOP TOO SMALL NO JOB TOO BIG



If you want dependable precision grinding select a Dumore. There's a type and size to fit the requirements of every shop—large or small. Whether on internal, external, or off-hand work, Dumore Grinders will do the job better, faster, cheaper.

OFF-HAND GRINDING

The No. 8 Hand Grinder is just the tool for correcting dies, touching up taps, lapping, sharpening button dies and many similar jobs. Light, dependable, and well balanced. The No. 8 hand grinder comes complete with ⅛" chuck, 3 mounted wheels, and a positive filter cap. $18.50



The No. 9 is a production hand grinder for work on automobile body dies, forming dies, molds and other heavy off hand work. Weighs but 7 lbs.—powered by a Dumore 1/5 h.p. universal motor. Has an efficient built-in air filter. Choice of end or side handle. Equipment includes straight and mounted wheels, wrenches, extension arbor and cord.....$40.00

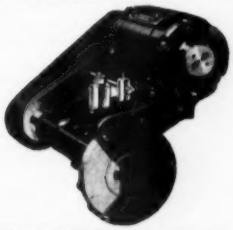
LATHE GRINDING

The new **Dumore No. 11** is the smallest precision Lathe Grinder made for internal and external work. So compact it will fit an 8" lathe. This unique tool, with its 1/5 h.p. motor will handle a wide range of work. Ball bearings, dynamic balance, and positive lubrication are only a few of the features found in the No. 11.....$59.50

The **No. 44 Lathe Grinder** was introduced to bring many of the features of the larger Dumore tools within the reach of every shop and tool room. It replaces the No. 2 AG in the Dumore line. The No. 44 is adaptable for both internal and external work. Has a ¼ h.p. motor and is equipped with chucks, wheels, wrenches, and a handy steel carrying case.....$79.50

The **No. 5 Grinder** leads the Dumore's line. Precision and power have been built into this internal-external grinder. Its ½ h.p. motor makes it ideal for either tool room or production work. Ten interchangeable quills, internal as well as external, are available.

No. 5 A Grinder (B-C2 quills).....$200.00
No. 5 B Grinder (External quill)..... 155.00
No. 5 C-2 Grinder (Internal quill)..... 155.00



The **No. 7 Grinder** embodies the same features found in the No. 5 except that it has a more powerful, ¾ h.p. universal motor. Thus the tool is rugged enough to handle the heavier internal and external work.

No. 7 A Grinder (Quills X, N).....$240.00
No. 7 X Grinder (External quill) 190.00
No. 7 N Grinder (Internal quill) 190.00

THE DUMORE CO., Dept. 165-X Racine, Wis.

DUMORE GRINDERS

THE
STANDARD ELECTRICAL TOOL CO.
Estab. 1912
CINCINNATI, OHIO

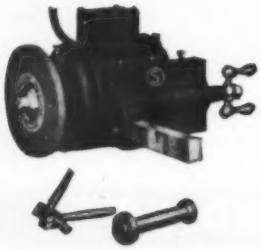
Electric Drills, Grinders, Buffers and Polishing Machines

General Electric Motors. SKF Ball Bearings

6" Portable Grinder

Universal Motor for A.C. or D.C. ¼ H.P. 5x¾" wheel. ¾ H.P. 6x1" wheel. Also A.C. and D.C. Grinders, ½ H.P. to 3 H.P.

High Frequency Grinders.

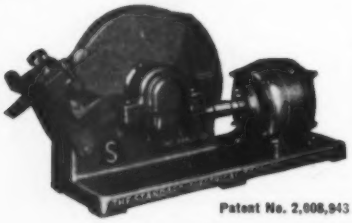


Tool Post or Center Grinders

With or without hand feed.
¼ H.P. 6" wheel. ½ H.P. 8" wheel.

***Also* Angle Plate Grinders**

for Planer, Boring Mill, Lathe, Shaper, etc. ¾ H.P. to 10 H.P. sizes.



Patent No. 2,608,943

Wet Tool Grinder

1/6 H.P. 110 volt, 60 cycle, single phase G. E. motor. 12x1¾x¾" Sandstone Wheel, 87 R.P.M. Weight 95 lbs.

Particularly for School Shops. Also for Pattern, Woodworking Shops, etc. Packing Houses, Meat Markets, Restaurants, Hospitals, etc., for sharpening cutlery. Furnished with or without Tool Holder.

DRILLS: Portable Electric, ¼" to 1½" sizes. Drill Stands for all sizes.

DRILLS: Radial, Portable Electric, ⅞" and 1¼".

BLOWERS: Portable; Exhaust.

BUFFERS AND POLISHERS: Portable, Bench, Pedestal, Adjustable Speed. Strip Steel and Wire, continuous.

CUTTERS: Tile, Marble, Slate, etc.

GRINDERS: Bench, Pedestal, Tungsten-Carbide, Internal, Ring Wheel, Disc, Adjustable Speed.

GROOVERS: Tongue and Groove, portable for flooring.

ROUTERS, type, for newspaper work.

SPECIAL MACHINES.

Dealers write for Catalog, Price List and Discounts.

Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.
Kingston-Conley Electric Co., Jersey City, N. J.
Layth-Grindar Corp., Orange, N. J.
Louisville Electric Manufacturing Co., Louisville, Ky.
M. C. Tool Co., Chicago, Ill.
McGonegal Mfg. Co., The, East Rutherford, N. J.
Mall Tool Co., Chicago, Ill.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Sunnen Products Co., St. Louis, Mo.
Syntron Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Grinders, Emery

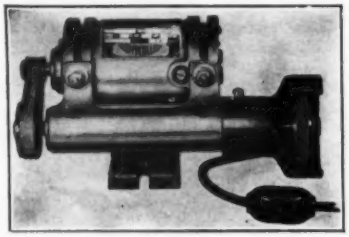
(See "Grinders, Tool")

Grinders, Flexible Shaft

Dumore Co., The, Racine, Wis.
Fidelity Electric Co., Lancaster, Pa.
Flexible Shafts, Inc., Binghamton, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.

THEMAC

PORTABLE ELECTRIC PRECISION GRINDER



The circumferentially adjustable grinding spindle can be quickly set to any lathe center. Grinder attaches directly to compound "T" slot. Grinding wheel can be used on right or left side front or rear of motor.

The McGonegal Manufacturing Co.
Rutherford, N. J. P. O. Box 149

The
PRECISION GRINDER
U. S. Type HLLU
"Pan American"

Has wider range of accurate grinding (external, internal and surface) than any other portable grinder built. Suitable for use on 10" and larger lathes and will grind within 2" of maximum lathe swing.

"The Precision Grinder" has a Universal Ball Bearing Motor, which operates on direct or alternating current (60 cycles or less). Speeds of 30,000, 16,500, 9,500 and 5,500 R. P. M. are obtainable by changing pulleys and belts. Comes in ¼ or ½ H. P. Many other outstanding features.

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Schauer Machine Co., Cincinnati, Ohio.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Grinders, Gear

Covel-Hanchett Co., Big Rapids, Mich.
Ingersoll-Rand Co., New York, N. Y.
Pratt & Whitney Co., Hartford, Conn.

Grinders, Guide Bar

Norton Co., Worcester, Mass.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Grinders, Hole and Face

Brown & Sharpe Mfg. Co., Providence, R. I.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corp., Orange, N. J.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.

Grinders, Internal

Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Klotz Machine Co., The, Sandusky, Ohio.
Layth-Grindar Corp, Orange, N. J.
Mall Tool Co., Chicago, Ill.
Micro Corp., The, Bettendorf, Iowa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford, Ill.
Sunnen Products Co., St. Louis, Mo.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Knife

Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Foley Manufacturing Co., Minneapolis, Minn.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Mountville Mfg. Co., Mountville, Pa.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Oilstone

Mummert-Dixon Co., Hanover, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Wallace, J. D., & Co., Chicago, Ill.

Grinders, Parallel

(See "Grinders, Angle Plate or Parallel")

Grinders, Patternmakers'

Besly, Charles H., & Co., Chicago, Ill.
Blount, J. G., Co., Everett, Mass.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Mall Tool Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Grinders, Piston

Brown & Sharpe Mfg. Co., Providence, R. I.
Covel-Hanchett Co., Big Rapids, Mich.
Norton Co., Worcester, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Piston Ring

Besly, Charles H., & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.

Grinders, Pneumatic

Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Onsrud Machine Works, Inc., Chicago, Ill.
Sheldon Machine Co., Chicago, Ill.

Grinders, Radial

Mummert-Dixon Co., Hanover, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Saw

(See "Sharpeners and Grinders, Saw")

Grinders, Surface

Armstrong-Blum Mfg. Co., Chicago, Ill.
Besly, Charles H., & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel Mfg. Co., Benton Harbor, Mich.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walls Sales Corp., New York, N. Y.

Grinders, Swing Frame

Black & Decker Mfg. Co., The, Towson, Md.
Hammett, H. G., Troy, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Pittsburgh Engineering Works, Pittsburgh, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Tool

Atkins, E. C., and Co., Indianapolis, Ind.
Baldor Electric Co., St. Louis, Mo.
Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dillon Electric Co., The, Canton, Ohio.
Dumore Co., The, Racine, Wis.
Foley Manufacturing Co., Minneapolis.
Forbes & Myers, Worcester, Mass.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Luther Grinder & Tool Co., Milwaukee, Wis.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
U. S. Electrical Motors, Inc., Los Angeles.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Grinders, Tool Post

Buckeye Portable Tool Co., The, Dayton, O.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Layth-Grindar Corp., Orange, N. J.
McGonegal Mfg. Co., The, East Rutherford, N. J.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee.
Onsrud Machine Co., The, Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cinnati, Ohio.

Grinders, Twist Drill

Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Hisey-Wolf Machine Co., The, Cincinnati.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Wappat Inc., Pittsburgh, Pa.

Grinders, Universal

Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville, Ky.
Greenfield Tap & Die Corp., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Valve

American Swiss File & Tool Co., Elizabeth, N. J.
Black & Decker Mfg. Co., The, Towson, Md.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Brunner Manufacturing Co., Utica, N. Y.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stevens, Walden, Inc., Worcester, Mass. (Hand, gas engine)
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

Grinding Attachments

Boice, W. B. & J. E., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Eye Shield Co., Chicago, Ill. (Grinder guards)
Dumore Co., The, Racine, Wis.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Mountville Mfg. Co., Mountville, Pa.
Norton Co., Worcester, Mass.
Strand, N. A., & Co., Chicago, Ill.
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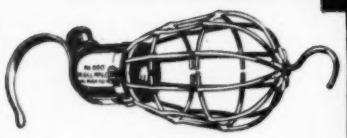

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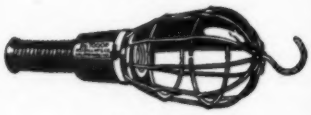

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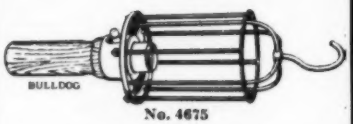

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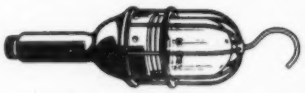

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Grindstones, Motor Driven, Portable

Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grips, Cable

Clark Manufacturing Co., The, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.
Ralco Manufacturing Co., Chicago, Ill.

Grips, File, Rubber

Goodrich, B. F., Co., The, Akron, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.

Grips, Linemen's

Klein, M., & Sons, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.

Grooving Machines

(See "Machines, Grooving")

Guards, Electric Lamp

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Euclid Rubber Co., Cleveland, Ohio.
Hubbell, Harvey, Inc., Bridgeport, Conn.
McGill Manufacturing Co., Valparaiso, Ind. (Wall, portable, reflector, lock)
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Washburn Co., The, Worcester, Mass.

Guards, Glass, Gauge

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Capitol Brass Division Bohn Aluminum & Brass Corp., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Essex Brass Corp., Detroit, Mich.
Keckley, O. C., Co., Chicago, Ill.
Macbeth-Evans Glass Co., Charleroi, Pa.
Nason Manufacturing Co., New York, N. Y.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sargent Co., Chicago, Ill.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Guards and Safety Appliances, Machinery

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Burt Manufacturing Co., Akron, Ohio.
Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Diamond Iron Works, Inc., Minneapolis.
Geuder, Paeschke & Frey Co., Milwaukee.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Page Steel & Wire Co., Pittsburgh, Pa.
Palmer-Bee Co., Detroit, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.
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Safety Equipment Service Co., Cleveland.
Tally-Meter Co., Norwich, Conn.
Wickwire Spencer Steel Co., New York.

Guides, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.

Gummers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Champion Blower and Forge Co., Lancaster, Pa.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Foley Manufacturing Co., Minneapolis, Minn.
Luther Grinder & Tool Co., Milwaukee.
Perkins & Co., Grand Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.

Guns, Air

(See "Air Guns")

Guns, Grease and Oil

Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
DeVilbiss Co., The, Toledo, Ohio.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Essex Brass Corp., Detroit, Mich.
H. D. B. Corporation, Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Perkins Marine Lamp Corp., Brooklyn.
Rose, Frank, Mfg. Co., Hastings, Neb.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Turner Brass Works, The, Sycamore, Ill. (Oil only)
United States Air Compressor Co., Cleveland, Ohio.

Guns, Metal Spraying

(See "Metallizing Equipment")

Guns, Paint Spraying

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Brunner Manufacturing Co., Utica, N. Y.
Burning Brand Co., Chicago, Ill.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
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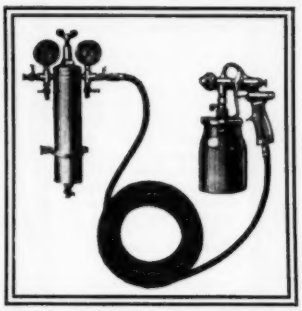
IMPERIAL SPRAY PAINTING EQUIPMENT



Imperial No. 73-C Spray Painting Outfit, for industrial plants, automobile paint shops, garages, dealers, etc., that have a source of air supply. Outfit consists of Hi-Duty spray gun with 1 qt. container, 25 ft. 5/16" heavy duty air hose, and water and oil separator. Outfit complete, $60.85.

A Complete Line of Modern Equipment for All Classes of Spray Painting and Finishing

Imperial paint spray guns and portable and stationary outfits are made in types and sizes to suit all requirements of the trades and industries.

The Imperial gun is a marvel of simplicity and perfect operation. The new type of spray head insures an even, regular pattern, the shape of which may be changed instantly to suit the needs of the operator.

The Imperial Separator removes oil and moisture from air lines and delivers clean, dry air. Imperial Pressure Feed Containers, in 5, 10, 15 and 20-gallon sizes, allow the work to continue without interruption for refilling. Imperial Compressors are made in sizes from ¼ to 7 H. P.

Ask for Catalog No. 112-A showing the full line of Imperial spray painting equipment and supplies.

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Quigley Co., Inc., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Vortex Manufacturing Co., The, Cleveland, Ohio.

Hammers, Blacksmiths' and Horseshoers'

Blacker Engineering Corp., New York, N.Y.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Maydole, David, Tool Corp., Norwich, N. Y.
Plumb, Fayette, R., Inc., Philadelphia, Pennsylvania.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Illinois.

Hammers, Brass and Bronze

Billings & Spencer Co., The, Hartford, Conn.
Great Lakes Chemical Works, Detroit, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers—Bricklayers', Patternmakers', Prospecting, Tile Setters'

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Kilborn and Bishop Co., The, New Haven, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, Ohio. ((Bricklayers' only)

Hammers, Calking, Hand

Bernz, Otto, Co., Inc., Rochester, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Mueller Co., Decatur, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Hammers, Carpenters'

Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.
Vichek Tool Co., The, Cleveland, Ohio.

Hammers, Chipping, Hand

Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Maydole, David, Tool Corp., Norwich, N. Y.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.

Hammers, Copper

Billings & Spencer Co., The, Hartford, Conn.
Bunting Brass & Bronze Co., The, Chicago, Ill. (Copper bronze)
Great Lakes Chemical Works, Detroit, Mich.
Greene, Tweed & Co., New York, N. Y.
Harris, Arthur, & Co., Chicago, Illinois.
Hays Manufacturing Co., Erie, Pa. (Also bronze)
Moak Machine & Tool Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
U. S. Indestructible Gasket Co., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers, Drop, Board

American Hoist & Derrick Co., St. Paul, Minn.
Billings & Spencer Co., The, Hartford, Conn.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Industrial Brownhoist Corp., Cleveland, O.

Hammers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Blacker Engineering Corp., New York.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Pneumatic Tool Co., New York.
Industrial Brownhoist Corp., Cleveland, O.
Milwaukee Electric Tool Corp., Milwaukee.
Speedway Manufacturing Co., Cicero, Ill.
Stanley Electric Tool Division, New Britain, Conn.
Stow Mfg. Co., The, Binghamton, N. Y.
Syntron Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Hammers, Engineers'

Bonney Forge & Tool Works, Allentown, Pa.
Estwing Mfg. Co., Rockford, Ill.

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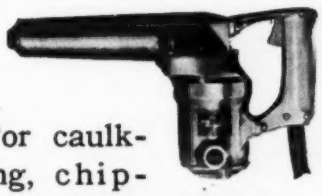

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Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Hammers, Facing and Furrow

Onesti Bros., Highland Park, Ill.

Hammers, Lead Face

Billings & Spencer Co., The, Hartford, Conn.
Great Lakes Chemical Works, Detroit.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
U. S. Indestructible Gasket Co., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers, Machinists'

Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Southington Mfg. Co., Inc., The, Southington, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Hame Co., Buffalo, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.

Hammers, Mallets and Mauls—Rawhide and Leather

Chicago Rawhide Mfg. Co., The, Chicago.
Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Goodrich, B. F., Co., The, Akron, Ohio (Rubber)
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Holbrook Raw Hide Co., Providence, R. I.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.

Hammers, Pneumatic—Chipping, Scaling, Riveting and Calking

Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., Cleveland.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.

Hammers, Power

Blacker Engineering Corp., New York.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Construction Machinery Co., Waterloo, Ia.
Independent Pneumatic Tool Co., Chicago.
Industrial Brownhoist Corp., Cleveland, O.
Ingersoll-Rand Co., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Quickwork Co., The, Chicago, Ill.

Hammers, Riveting

Bernz, Otto, Co., Inc., Rochester, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., Cleveland.
Cleveland Rock Drill Co., The, Cleveland.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Niagara Machine & Tool Works, Buffalo.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Hame Co., Buffalo, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.
Whitney Metal Tool Co., Rockford, Ill.

Hammers, Saw Setting

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Simonds Saw and Steel Co., Fitchburg, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Hammers, Soft Faced

Bonney Forge and Tool Works, Allentown, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.

Hammers, Striking

(See "Sledges, Mauls or Striking Hammers")

Hammers, Tinners'

Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Hand Screws

(See "Screws, Hand")

Handholes, Boiler and Tank

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Handles—Adze, Axe and Hammer

American Handle Co., Jonesboro, Ark.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

Handles, Balance Crank

Piqua Handle and Mfg. Co., The, Piqua, O.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Brush and Broom

Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Warren Handle Works Co., Cortland, Ohio.

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Mauls

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PARKER-KALON

Handles—File, Chisel, Etc.

Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hy-Tools, Inc., Buffalo, N. Y.
Kaalot Mfg. Co., The, Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Nicholson File Co., Providence, R. I.
Osgood, J. L., Mach. & Tool Co., Buffalo.
Parker-Kalon Corp., New York, N. Y. (File handles)
Peck, Stow & Wilcox Co., Southington, Conn.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Strock, L. W., & Co., Bethlehem, Pa.
Tuck Mfg. Co., Brockton, Mass.
Warren Handle Works Co., Cortland, Ohio.
Washburn Co., The, Worcester, Mass.
Wave Cut File & Tool Corp., New York.

Handles, Machine

American Handle Co., Jonesboro, Ark.
Link, O. P., Handle Co., Salem, Ind.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Pick

American Handle Co., Jonesboro, Ark.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, O.

Handles, Portable Electric Lamp

Euclid Rubber Co., Cleveland, Ohio.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.

Handles, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia.
Ohlen-Bishop Co., The, Columbus, Ohio.
Peterson, F. W., Co., New York, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.

Handles, Scoop and Shovel

Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Hubbard & Co., Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Southington Mfg. Co., Inc., The, Southington, Conn.
Warren Handle Works Co., Cortland, Ohio.

Handles, Sledge

American Handle Co., Jonesboro, Ark.
Heller Brothers Co., Newark, N. J.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Link, O. P., Handle Co., Salem, Ind.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

Handles, Soldering Iron

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hy-Tools, Inc., Buffalo, N. Y.
Kaalot Mfg. Co., The, Chicago, Ill.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.
Parker-Kalon Corp., New York, N. Y.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Strock, L. W. & Co., Bethlehem, Pa.
Unique Manufacturing Co., Inc., Chicago.
Warren Handle Works Co., Cortland, Ohio.

Handles, Valve

(See "Wheels, Valve")

Hangers, Beam and Joist

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hangers, Belt Shifter

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Raniville, F., Co., Grand Rapids, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N.Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Countershaft

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry & Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
S.K.F. Industries, Inc., Philadelphia, Pa.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Walker-Turner Co., Inc., Plainfield, N. J.
Webb, J. A., Belting Co., Inc., Buffalo, N.Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers and Tracks, Door

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.
Western Products, Inc., Newcastle, Ind.

Hangers, Fire Door

Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Western Products, Inc., Newcastle, Ind.

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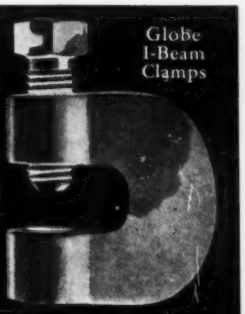

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Hangers, Head Shaft

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Edgemont Machine Co., The, Dayton, O.
Falls Clutch & Machinery Co., Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Pipe

Acheson Manufacturing Co., Rankin, Pa.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Armstrong-Bray & Co., Chicago, Ill.
Bonney Forge & Tool Works, Allentown, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Modern Mfg. Co., The, Cleveland, Ohio.
Newbury, Jay H., & Son, Inc., Goshen, N.Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reznor Mfg. Co., Mercer, Pa.
U. S. Expansion Bolt Co., New York, N. Y.
Wall P., Mfg. Supply Co., Pittsburgh, Pa.
Walworth Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Hangers, Pipe, Adjustable

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Lupton's, David, Sons Co., Philadelphia, Pa.
Modern Mfg. Co., Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N.Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Hangers, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.

Hangers, Pipe, Chain

(See "Chain, Pipe Hanging")

Hangers, Pipe, Expansion

Chicago Expansion Bolt Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hubbard & Co., Pittsburgh, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Modern Mfg. Co., The, Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.

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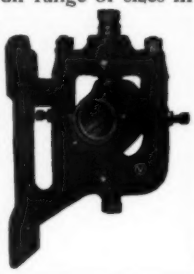


Sprout, Waldron & Co.

Muncy, Pa.

Hangers, Pipe, Perforated Strap

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Armstrong-Bray & Co., Chicago, Ill.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Lupton's, David, Sons Co., Philadelphia.
Modern Mfg. Co., The, Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.

Hangers, Range Boiler

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.

Hangers, Shaft, Anti-Friction Bearing

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Bracket

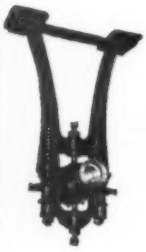
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Wadron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Drop and Post

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunter, James, Machine Co., North Adams, Mass.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.

MEDART HANGERS

four-point adjustment
two-point adjustment



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Universal drop
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Open post
Closed Post

Medart hangers may be used with any Medart hanger bearings, and with the majority of standard hanger bearings. Two- and four-point adjustment permit perfect alignment. Write for information.

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ROLLER BEARING HANGERS reduce power and maintenance costs.

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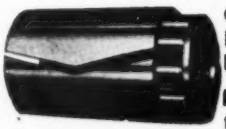

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Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Ring Oiling

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American Pulley Co., The, Philadelphia.
Atkins, E. C., and Co., Indianapolis, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Self Oiling

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Delta Mfg. Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pyott Foundry & Machine Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Sling

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Steel

Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Hangers, Sprinkler

Berger Bros. Co., Philadelphia, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
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Pittsburgh Crushed Steel Co., Pittsburgh.

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(See "Instruments, Testing, Hardness")

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Everitt Co., The, Boston, Mass.
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Lignum-Vitae Products Corp., Jersey City, N. J.
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Mueller Brass Co., Port Huron, Mich.
Newhall Chain Forge & Iron Co., New York.
Newman Bros., Inc., Norwood, Cincinnati.
Perkins Marine Lamp Corp., Brooklyn, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
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Torrey Roller Bushing Works, Bath, Me.
Washburn Co., The, Worcester, Mass.
Yale & Towne Mfg. Co., The, Stamford, Conn.

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Sargent & Co., New Haven, Conn.
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Wrought Iron Co. of America, Lebanon, Pa.

Hasps, Hinge

Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Torrey Roller Bushing Works, Bath, Me.
Veeder-Root Co., Hartford, Conn.

Hasps, Staple

(See "Staples and Hasps")

Hatchets

(See "Axes and Hatchets")

Hats, Safety

Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliance Co., Pittsburgh, Pa.
Standard Safety Equipment Co., Chicago.

Hats, Safety, Miners'

(See "Caps and Hats, Safety, Miners' ")

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Walworth Co., New York, N. Y.

Heads, Beam

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Heads, Boiler, Flanged and Dished

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Illinois Scully Steel Warehouse Co., Chicago, Ill.
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Ryerson, Joseph T., & Sons, Chicago, Ill.

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Pratt & Whitney Co., Hartford, Conn.
Westcott Chuck Co., Oneida, N. Y.

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Hermance Machine Co., Williamsport, Pa.
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Oliver Machinery Co., Grand Rapids, Mich.
Orum, S. R. M., Inc., Philadelphia, Pa.
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Hudson-Sharp Machine Co., Green Bay, Wis.
National Acme Co., The, Cleveland, Ohio.

Heads, Die Threading

Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.

Heads, Dividing and Indexing

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Fisher Governor Co., The, Marshalltown, Iowa.
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Taylor Forge & Pipe Works, Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Heads, Facing

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Gisholt Machine Co., Madison, Wis.
Mummert-Dixon Co., Hanover, Pa.

Heads, Grinding and Polishing

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Millers Falls Co., Greenfield, Mass.
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Heads, Working

(See "Pumps, Deep Well")

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Unique Manufacturing Co., Inc., Chicago.

Heaters, Concrete

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Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Unique Manufacturing Co., Inc., Chicago.

Heaters, Feed Water

Harris, Arthur, & Co., Chicago, Ill.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
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Foster Wheeler Corp., New York, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Heaters, Garage

Buffalo Forge Co., Buffalo, N. Y.
Crane Co., Chicago, Ill.
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Metal Specialties Mfg. Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Nason Manufacturing Co., New York, N. Y.
National Radiator Corp., Johnstown, Pa.
Russell Electric Co., Chicago, Ill.

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Black & Decker Mfg. Co., The, Towson, Md. (Electric)
Cutler-Hammer, Inc., Milwaukee, Wis.
Dallett Co., The, Philadelphia, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hollands Mfg. Co., Erie, Pa.
Instantaneous Glue Converter Co., Cincinnati, Ohio.
Nason Manufacturing Co., New York, N. Y.
Pancoast, Henry B., Co., Philadelphia, Pa.
Russell Electric Co., Chicago, Ill. (Electric)
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
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Vulcan Electric Co., Lynn, Mass.
Wallace, J. D., & Co., Chicago. (Electric)

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Electric Glue Pot
Thermostatic control, designed to maintain temperature.
2-quart capacity
The Van Dorn Electric Tool Co.
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Cutler-Hammer, Inc., Milwaukee, Wis.
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General Electric Co., Schenectady, N. Y.
Mars Car Co., The, Aurora, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.

Heaters, Ladle

Diamond Iron Works, Inc., Minneapolis, Minn.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Vulcan Electric Co., Lynn, Mass.

Heaters, Melting Pot, Electric

Cutler-Hammer, Inc., Milwaukee, Wis.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Vulcan Electric Co., Lynn, Mass.

Heaters, Pipe, Electric

Black & Decker Mfg. Co., The, Towson, Md.
General Electric Co., Schenectady, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.

Heaters, Rivet and Metal, Electric

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Cutler-Hammer, Inc., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis, Minn.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia.

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Aeroil Burner Co., Inc., West New York, N. J.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
R. S. Products Corp., Philadelphia.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Heaters, Unit

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Electric Air Heater Div., American Foundry Equipment Co., Mishawaka, Ind.
Grinnell Co., Inc., Providence, R. I.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Modine Mfg. Co., Racine, Wis.
National Radiator Corp., Johnstown, Pa.
Reznor Mfg. Co., Mercer, Pa. (Gas fired)
Russell Electric Co., Chicago. (Electric)
Sturtevant, B. F., Co., Boston, Mass.
Vulcan Electric Co., Lynn, Mass.

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Vulcan Electric Co., Lynn, Mass.
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Sands Mfg. Co., The, Cleveland, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
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Bastian-Morley Co., LaPorte, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Helmets, Ammonia and Smoke

American-LaFrance and Foamite Corp., Elmira, N. Y.
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Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Helmets, Arc Welding

Air Reduction Sales Co., New York, N. Y.
Buegeleisen, Harry, Brooklyn, N. Y.
Chicago Eye Shield Co., Chicago, Ill.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Sight Feed Generator Co., Richmond, Ind.
Strauss & Buegeleisen, Brooklyn, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Willson Products, Inc., Reading, Pa.

Helmets, Miners' Rescue

Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Helmets, Sand Blast

Chicago Eye Shield Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Safety Equipment Service Co., Cleveland.
Willson Products, Inc., Reading, Pa.

Hickeys, Pipe

(See "Benders, Conduit and Pipe")

Hinges, Steel Strap and "T"

(See "Butts and Hinges, Steel")

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National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Hods, Brick and Mortar

Lansing Co., Lansing, Mich.
Littleford Bros., Cincinnati, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

Hoes, Grub

(See "Picks, Mattocks and Grub Hoes")

Hoes, Rakes and Forks

Collins Co., The, Collinsville, Conn.

Hoists, Belt Power

American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jordan Bros., Inc., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Mason, Volney W., & Co., Boston, Mass.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Schultz, A. L., & Son, Chicago, Ill.

Hoists, Chain

American Chain Co., Inc., Bridgeport, Conn.
American Hoist & Derrick Co., St. Paul, Minn.

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to Make

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as Complete and Up-to-date as Possible

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In Such Cases, Write

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And We Will Do Everything We Can to Secure It for You

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"THE UNIVERSAL TOOLS"

Coffing hoists are scientifically designed and dependable. They operate safely, quickly, and economically. Industry today is using more Coffing hoists than ever before.

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The "CHALLENGER"

The Coffing "Challenger" (extreme right illustration) is a new idea in hoists. It uses Twin levers, with rope pull (operating on the face of disc wheels by friction grip) to lift the load, gravity to lower it. Lowering speed is completely controlled by a simple governor. The faster operation possible with this hoist slashes hoisting costs. Available in ¼, ½, 1, and 2 ton capacities.

COFFING RATCHET LEVER HOISTS

1. Models A and F; ¾ and 1½ ton capacities respectively; Model A weighs 14 lb.; Model F weighs 25 lb.; lifting speeds per minute, 36 in. and 48 in. respectively.
2. Model F-S; 3 ton capacity; weighs 36 lb.; lifting speed per minute, 24 in.
3. Model F-T; 3 ton capacity; weighs 34 lb.; lifting speed per minute, 24 in.
4. Model Z; 4½ and 6 tons capacity; smaller size weighs 59 lb.; larger size weighs 65 lb.; lifting speeds, per minute, 18 in. and 12 in. respectively.

Our experienced factory trained salesmen will help you with your sales. Send us your inquiry.

COFFING HOIST CO., DANVILLE, ILL.

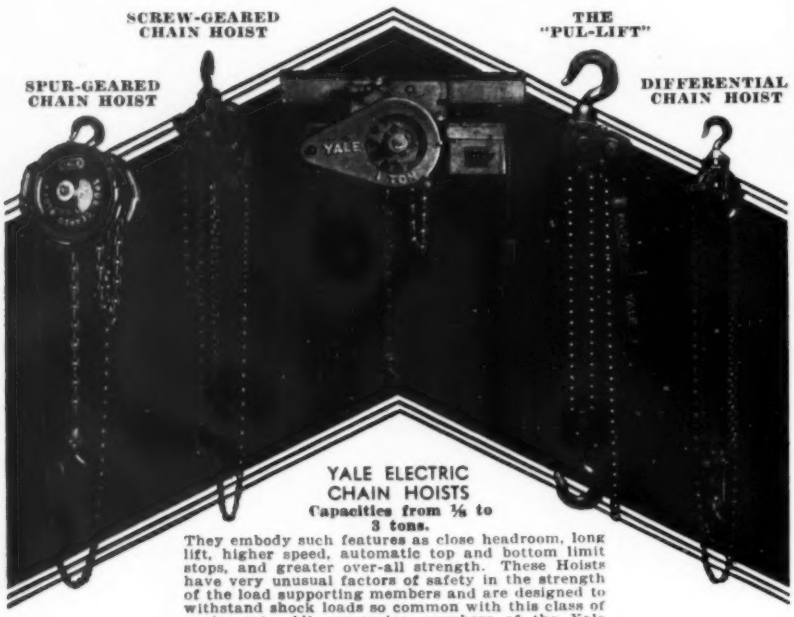
COFFING *ADVANCED DESIGN* HOISTS

SPUR GEAR - RATCHET LEVER - ELECTRIC - LOAD BINDERS

THE YALE & TOWNE MFG. CO.

Manufacturers of Yale Hand Chain Hoists, Electric Hoists, Hand and Motor-Driven Trolleys, Single I-Beam Cranes, Hand Lift Trucks and Skid Platforms.

PHILADELPHIA DIVISION, PHILADELPHIA, PA., U. S. A.



YALE ELECTRIC CHAIN HOISTS

Capacities from ⅛ to 3 tons.

They embody such features as close headroom, long lift, higher speed, automatic top and bottom limit stops, and greater over-all strength. These Hoists have very unusual factors of safety in the strength of the load supporting members and are designed to withstand shock loads so common with this class of equipment. All suspension members of the Yale Electric Chain Hoist are made of the highest quality steel.

YALE BALL BEARING SPUR GEARED CHAIN HOISTS

Capacities from 300 lbs. to 40 tons.

These powerful hoists, made by the world's oldest and largest manufacturers of hoisting equipment, are the safest as well as the speediest and most efficient of all hand hoists, because they are **"FROM HOOK TO HOOK A LINE OF STEEL"**

YALE SCREW GEARED CHAIN HOISTS

Capacities from ½ to 5 tons.

Suitable for horizontal as well as upright service because they are light and portable, as well as strong and durable. Operate on worm wheel and screw principle and provide close headroom.

YALE DIFFERENTIAL CHAIN HOISTS

Capacities from ¼ to 2 tons.

Designed to meet ordinary hoisting needs where the speed and power of the spur geared and screw geared types are not required. Especially suitable for service where loads are comparatively light.

THE "PUL-LIFT"

Capacities ¾; 1½; 3 and 6 tons.

The PUL-LIFT is light in weight. It is serviceable in either the horizontal or vertical position . . . for PULLING or LIFTING. It is compact, portable and easily transported from one job to another.

YALE STEEL PLATE TROLLEYS
Plain and Geared Types

Capacities ¼ to 40 tons.

Strong, easy-running, with an ultimate strength of seven times their rated capacities. They traverse short radius curves easily without binding; non-rigid construction allows wheel flanges to take positions suited to the curve and slope of the I-beam flange. Dust-tight, self-oiling, equalizing roller bearings, heat-treated, hardened and ground, assure easy lateral motion.

YALE RAIL-HUGGER TROLLEY HOIST

An up-to-the-minute Yale achievement which provides the closest headroom of any type of chain hoist. Unit combines a Yale Ball Bearing Spur Geared Chain Hoist with Yale Trolley equipped with Timken roller bearings.

TRADE **YALE** MARK

THE YALE & TOWNE MFG. CO.

PHILADELPHIA DIVISION

Philadelphia, Pa., U. S. A.

IMPORTANT—All Yale Hoists are tested to 50% overload—long ton rating 2240 lbs.

Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y. (Including differential)
Conco Engineering Works, Mendota, Ill.
Dallett Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Milwaukee Electric Tool Corp., Milwaukee.
Osborn Manufacturing Co., The, Cleveland.

(Continued on page 160)

Distributors—

Are All Your SALESMEN Receiving MILL SUPPLIES Regularly?

If Not—

Why not take advantage of our interesting group subscription plan for mill supply houses?

MILL SUPPLIES

—"The Magazine of Industrial Distribution"

No other so RIGHT

as the

WRIGHT

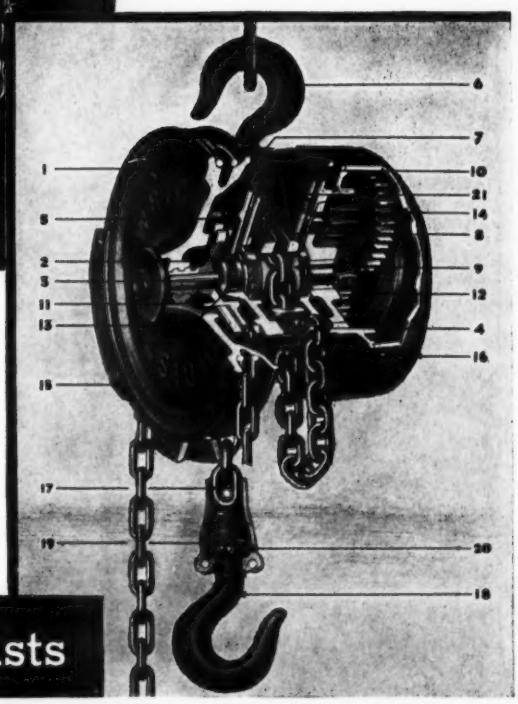
1 Zinc Coated Finish
2 Load Wheel Bearings
3 Positive Grease Seals
4 Dead-End Attachment
5 Hardened Pawl Tip
6 Steel Top Hook
7 Drop-Forged Cross Head
8 Safety Load Chain Guard
9 Electric Steel Load Wheel
10 Oil Tubes
11 Main Driving Spindle
12 Bronzed Bushed Load Sheave
13 Driving Spindle Bearing
14 Steel Suspension Plates
15 Non-Fouling Hand Chain Guide
16 Gear Cover
17 Special Analysis Steel Chain
18 Drop-Forged Bottom Hook
19 Detachable Steel Coupling
20 Thrust Bearing on Bottom Hook
21 Oil Hole Covers

No other with so many sales features . . . .

● Here is a modernized chain hoist that should be a "duck soup" sales proposition for any industrial distributor's salesman. Why? Simply because it is RIGHT in every respect; because it possesses so many real down-to-earth sales points; because it is a WRIGHT Hoist—and there is no better.

Study the list of features on this page. Every one of them is a talking point. Some of them are exclusive with the Wright. For instance: Only Wright offers the zinc coated finish; precision ball bearings in the load wheel; a safety load chain guard that prevents chain from riding out of pockets; ball bearings in the driving spindle bearing—these are only four of the many features which make the Wright Hoist the right hoist for industrial distributors to sell.

Complete sales data which covers the Wright Improved High Speed Hoist in detail will be sent upon request to industrial distributors and their salesmen.



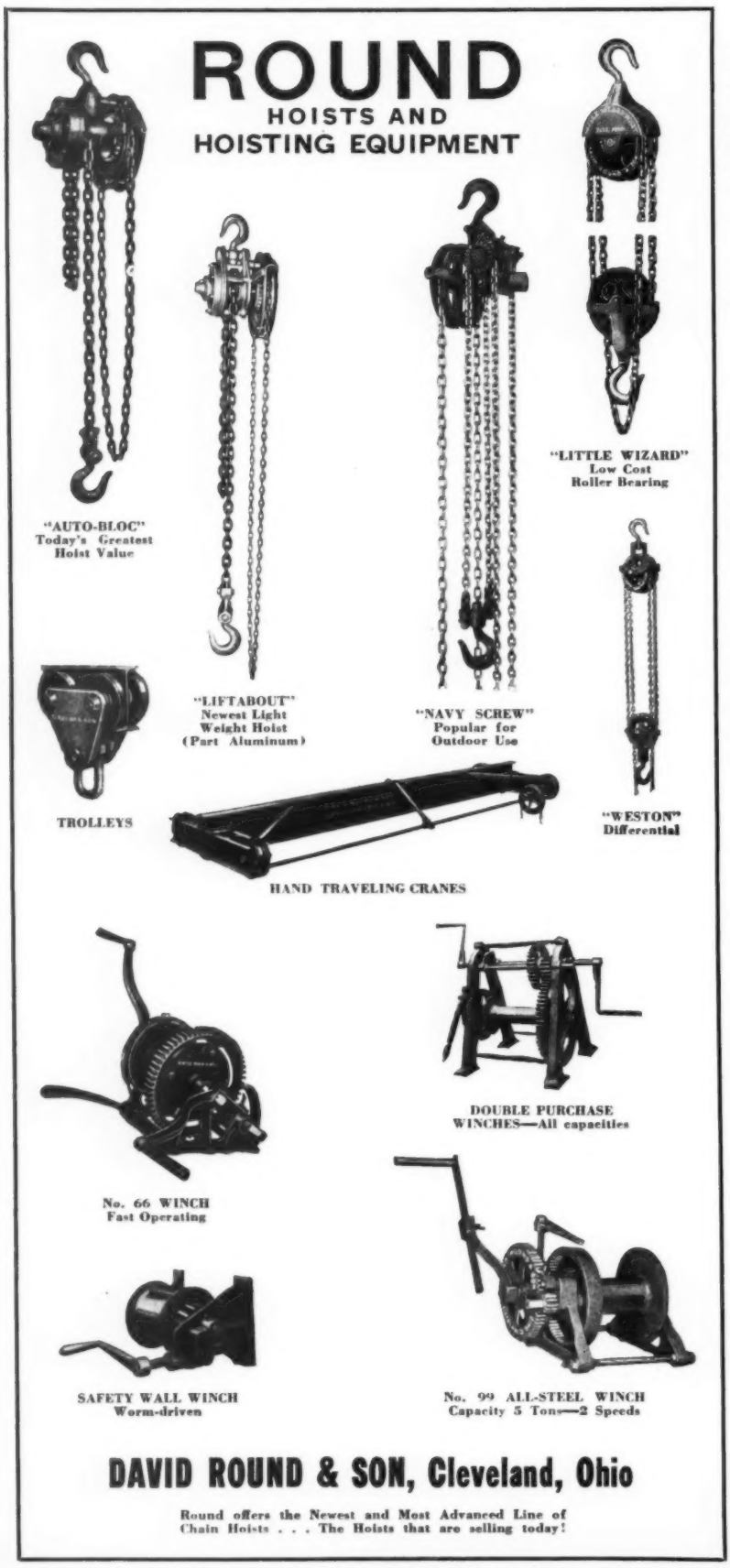
ACCO

WRIGHT MANUFACTURING DIVISION OF THE AMERICAN CHAIN COMPANY, *Incorporated*
YORK, PENNSYLVANIA

In Business for Your Safety

WRIGHT *Improved* **High Speed Hoists**

UMI



Hoists, Chain

(Continued from page 158)

Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Starline Inc., Harvard, Ill.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Chain, Gravity Lowering

Coffing Hoist Co., Danville, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.

Hoists, Coal Handling

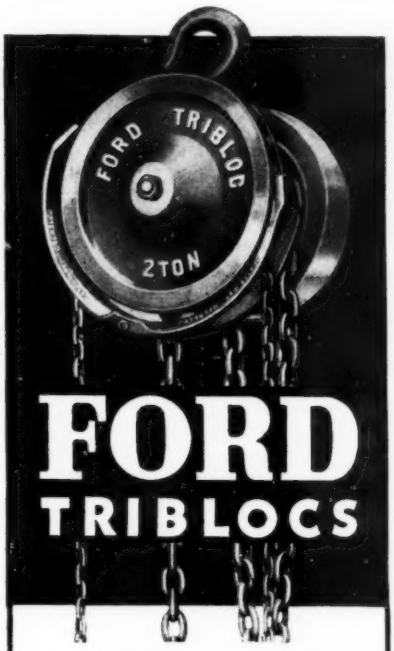
American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., The, Marion, O.
Fridy Hoist and Machinery Co., Mountville, Pa.
Gifford-Wood Co., Hudson, N. Y.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mason, Volney W., & Co., Boston, Mass.
Miller Machine Works, Springs, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shephard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Yale & Towne Mfg. Co. The (Philadelphia Division), Philadelphia, Pa.

Hoists, Contractors'

American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Dake Engine Co., Grand Haven, Mich.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fridy Hoist and Machinery Co., Mountville, Pa.
Godfrey Conveyor Co., Elkhart, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Loane Engineering Co., Baltimore, Md.
McMillan's, W. H., Sons, New York, N. Y.
Mason, Volney W., & Co., Boston, Mass.
Moore-Master Mfg. Co., Chicago, Ill.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stimmel Winch Company, Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Electric

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Chain Co., Inc., Bridgeport, Conn.
American Engineering Co., Philadelphia, Pa.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.



FORD TRIBLOCS

FOR LONG-LASTING POWER AND SPEED

● The Ford Tribloc of today is the outcome of long experience in load lifting. Weaknesses and wear points of ordinary hoists were located. Resistances were built up to oppose them. So the Ford Tribloc is a hoist of remarkable durability.

The main castings are of certified malleable iron. They stand far more use and abuse than grey iron. The load chain is die-formed, side-welded electrically, and is of heat-treated high carbon steel. Hooks are drop-forged.

Ball bearing load-hook makes turning easy and prevents load chain torsion and twisting friction in load sheave. Hand chain guide keeps the chain straight and makes it impossible for chain to ride out of hand wheel pockets.

Ask your jobber. Through him get these safe, fast smooth-working Ford Triblocs. They come in capacities from ¼ ton to 40 tons. He can also furnish a complete line of Ford Trolleys.

ACCO

FORD CHAIN BLOCK COMPANY
PHILADELPHIA, PA.
AN ASSOCIATE OF
AMERICAN CHAIN COMPANY, INC.

ROBBINS & MYERS—a complete line and a complete sales service

Trolleys, Hand Chain Hoists, Electric Hoists, Winches, Hand Power and Electric Cranes.

ROBBINS & MYERS, Inc.
Hoist Division
SPRINGFIELD, OHIO
Sold thru Mill Supply Houses everywhere

Earle Gear & Machine Co., The, Philadelphia, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist and Machinery Co., Mountville, Pa.
Gifford-Wood Co., Hudson, N. Y.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Industrial Brownhoist Corp., Cleveland, O.
Ingersoll-Rand Co., New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Maris Brothers, Inc., Philadelphia, Pa.
Mason, Volney W., & Co., Boston, Mass.
Orr & Sembower, Inc., Reading, Pa.
Osborn Manufacturing Co., The, Cleveland.
Philadelphia Gear Works, Philadelphia, Pa.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

DETROIT HOISTS

HOISTS and CRANES
ELECTRIC and PNEUMATIC

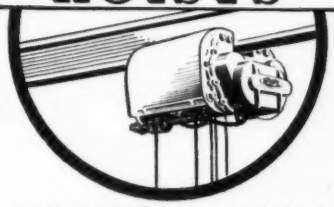
Capacity 1/4 to 10 Tons

"Detroit Hoists" have been on the market for 30 years.

Thousands in daily use.

DETROIT HOIST & MACHINE COMPANY
8203 Morrow St. DETROIT, MICH.

LO-HED MONORAIL ELECTRIC HOISTS



CAPACITIES ¼ to 12 TONS

Types: Bolt Suspension
Plain Trolley
Hand Geared Trolley
Motor Driven Trolley
Cab, Open or Closed

Controls: Pendant Cord
Push Button
Remote Control

Applicable to any overhead system.
For data on hoisting speeds, height of lift, weights, prices, etc., please write to us.

AMERICAN ENGINEERING
AMERICAN ENGINEERING COMPANY
436 Aramingo Avenue, Philadelphia
Representatives in all principal cities.

Hoists, Friction

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Coffing Hoist Co., Danville, Ill.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Jaeger Machine Co., The, Columbus, Ohio.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Manufacturers Equipment Co., The, Dayton, Ohio.
Mason, Volney W., & Co., Boston, Mass. (Wool)
Schultz, A. L., & Son, Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Geared Trolley

American Chain Co., Inc., Bridgeport, Conn.
American Engineering Co., Philadelphia, Pa.
Chicago Pneumatic Tool Co., New York.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland.
Ingersoll-Rand Co., New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Div., Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Hand Power

American Hoist & Derrick Co., St. Paul, Minn.
Beebe Bros., Seattle, Wash.
Canton Foundry & Machine Co., The, Canton, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dallett Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Hall Manufacturing Co., Cedar Rapids, Ia.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Lewis-Shepard Co., Boston, Mass.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Hydraulic

Cardwell Machine Co., The, Richmond, Va.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Lewis-Shepard Co., Boston, Mass.
United Machinery Co., Portland, Ore.
United States Air Compressor Co., Cleveland, Ohio.
Wood, H. C., Machine Works, San Francisco, Calif.

Hoists, Monorail Trolley

American Engineering Co., Philadelphia, Pa.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Fairfield Engineering Co., The, Marion, O.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, & Son, Cleveland, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sampson Tool Co., Inc., New York, N. Y.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Union Mfg. Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Pneumatic

Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Hannifin Mfg. Co., Chicago, Ill.

CURTIS AIR HOISTS

and I-Beam TROLLEYS

The most practical and economical hoist for handling loads where speed and accurate spotting are important. Costs little more than a chain block. Maintenance cost negligible. Operating cost very reasonable. Send for surveys showing cost and savings effected in many kinds of industries. Capacities, ½ to 10 tons.

CURTIS PNEUMATIC MACHY. CO.

1928 Kienlen Avenue St. Louis, Mo.

CURTIS

COMPRESSORS—AIR HOISTS—I-BEAM CRANES and TROLLEYS

Hobbs, Clinton E., Co., Boston, Mass.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Joyce-Cridland Co., The, Dayton, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Hoists, Portable

American Chain Co., Inc., Bridgeport, Conn.
American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
Canton Foundry & Machine Co., The, Canton, Ohio.
Cardwell Machine Co., The, Richmond, Va.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., The, Euclid, Ohio.
Harrington Co., The, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Mason, Volney W., & Co., Boston, Mass.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Mfg. Co., New Britain, Conn.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Ratchet Lever

Coffing Hoist Co., Danville, Ill.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Wright Mfg. Div. of American Chain Co., York, Pa.

Holders, Bag

Fairbanks Co., The, New York, N. Y.
Mountville Mfg. Co., Mountville, Pa.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Holders for Bit Brace Shank Tools

Ryerson, Joseph T., & Son, Inc., Chicago.

Holders, Card, Metal

Bay State Stamping Co., Worcester, Mass.
Cleveland Wire Spring Co., The, Cleveland.
Detroit Stamping Co., Detroit, Mich.
Haddon Bin Label Co., Hadden Heights, N. J.
Matthews, Jas. H., & Co., Pittsurgh, Pa.
Sargent & Co., New Haven, Conn.

Holders, Danger Flag

Coffing Hoist Co., Danville, Ill.

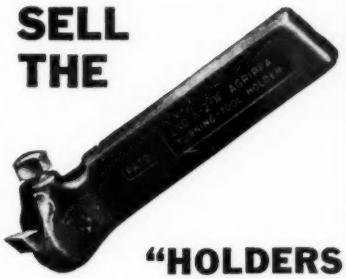
Holders, Die and Tap

Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Chicago Tool & Engineering Co., Chicago.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.

Holders, Drill

Armstrong Bros. Tool Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Gisholt Machine Co., Madison, Wis.

SELL THE



"HOLDERS THAT HOLD"

• Williams' "Agrippa" Tool Holders provide for all regular operations on lathe, planer and shaper:—turning, boring, planing, threading, knurling, cutting-off and side work. Exclusive design and construction features make them preferred by industrial buyers.

J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring St. NEW YORK, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
"AGRIPPA"
TOOL HOLDERS

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Rawlplug Co., Inc., The, New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Star Expansion Bolt Co., New York, N. Y.

Holders, Electrode, Welders'

General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.

Holders, Extension Bit

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Holders, File

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Nicholson File Co., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Holders, Floating, for Taps, Reamers and Counterbores

Brown & Sharpe Mfg. Co., Providence, R. I.
Gairing Tool Co., The, Detroit, Mich.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Holders, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Mulconroy Co., Inc., Philadelphia, Pa.

Holders, Knurl

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Williams, J. H., & Co., Buffalo, N. Y.

Holders, Nipple

(See "Chucks and Holders, Nipple")

Holders, Tool for Lathes, Planers, Shapers and Boring Machines

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Four Grip Tool Co., The, Paterson, N. J.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Lovejoy Tool Co., Inc., Springfield, Vt.
Marcy Tool Works, Inc., Putnam, Conn.
O.K. Tool Holder Co., The, Shelton, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Holders-on, Pneumatic

Chicago Pneumatic Tool Co., New York.
Ingersoll-Rand Co., New York, N. Y.
Scully-Jones & Co., Chicago, Ill.

Hoods, Acid, for Head Covering

Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Gross Rubber Co., Sharon, Pa.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Hoods, Buffing and Grinding Wheel

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.

Hoods, Dust, for Head Covering

American LaFrance and Foamite Corp., Elmira, N. Y.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Gross Rubber Co., Sharon, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.

Hoods, Forge

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Hoods, Smoke

Burt Manufacturing Co., The, Akron, Ohio.
Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Hoods and Respirators Combined

American-LaFrance and Foamite Corp., Elmira, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Willson Products, Inc., Reading, Pa.

Hooks, Belt

(See "Fasteners and Hooks, Belt")

Hooks, Bench

(See "Dogs and Hooks, Bench")

Hooks, Box and Bale Handling

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Leach Co., Oshkosh, Wis.
Palmer-Bee Co., Detroit, Mich.

Hooks, Cant

(See "Cant Hooks")

Hooks, Chain

American Chain Co., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Dixie Logging Tool Co., Chattanooga, Tenn.

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Taylor, S. G., Chain Co., Hammond, Ind.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hooks, Cornice, Painters'

McMillan's W. H., Sons, New York, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.
Sargent & Co., New Haven, Conn.

Hooks, Cotton and Cargo

Boston & Lockport Block Co., East Boston, Mass.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Sargent & Co., New Haven, Conn.

Hooks, "8" or "S"

American Chain Co., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Chain Products Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Cleveland Chain & Mfg. Co., Cleveland, O.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Fire Pail

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Safety Fire Extinguisher Co., New York.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Grab and Slip

American Chain Co., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Jiffy Fire Hose Rack Co., New York, N. Y.
Leach Co., Oshkosh, Wis.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Hooks, Hoist, Drop Forged

American Chain Co., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Chain & Mfg. Co., Cleveland, O.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, J. H., & Co., Buffalo, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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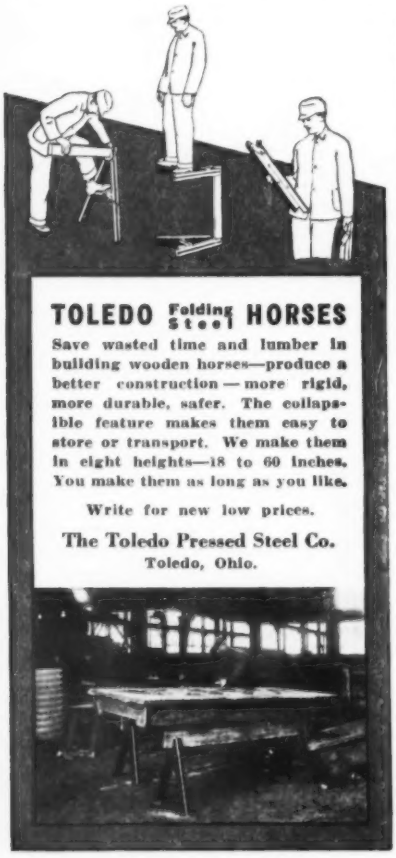

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Hubbard & Co., Pittsburgh, Pa.
Lupton's, David, Sons, Co., Philadelphia.
Sargent & Co., New Haven, Conn.
Western Wire Products Co., St. Louis, Mo.

Hooks, Screw

Brooks, M. S., & Sons, Inc., Chester, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Republic Steel Corp., Cleveland, Ohio.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Truck Lantern

Toledo Pressed Steel Co., Toledo, Ohio.

Hoppers, Concrete

Chain Belt Co., Milwaukee, Wis.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Horses, Steel

Angle Steel Stool Co., Plainwell, Mich.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Patent Scaffolding Co., The, Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill.
Toledo Pressed Steel Co., The, Toledo, O.

Hose, Acid

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Continental Rubber Works, Erie, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Titeflex Metal Hose Corp., Newark, N. J.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Air Brake

(See "Hose, Rubber, Air" and "Hose or Tubing, Metallic, Flexible")

Hose, Chemical Engine

(See "Hose, Rubber")

Hose, Coke

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
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Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Whitehead Bros., Rubber Co., Trenton, N.J.

Hose, Cotton, and Cotton, Rubber Lined

American Fire Hose Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Continental Rubber Works, Erie, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Niedner's, Chas., Sons Co., Malden, Mass.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose Couplings

(See "Couplings, Hose," and "Couplings for Flexible Metal Hose")

Hose, Divers'

(See "Hose, Rubber")

Hose Ends

(See "Ends, Hose")

Hose, Engine and Tender

(See "Hose, Rubber")

Hose, Fire Engine

(See "Hose, Cotton," "Hose, Rubber," and "Hose, Linen")

Hose, Gas

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.

Hose, Gasoline

Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Bowser, S. F., and Co., Fort Wayne, Ind.
Chicago Tubing & Braiding Co., Maywood, Ill.

Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., The, Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Hydraulic

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Asch & Co., Inc., New York, N. Y.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Linen

American Fire Hose Co., Philadelphia, Pa.
Beck, Wm. and Chas., and Sons, Lawrence, Mass.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Kidde, Walter, & Co., Inc., Bloomfield, N.J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhanttan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Neidner's, Chas., Sons Co., Malden, Mass.
New York Belting & Packing Co., Passaic, N. J.

Hose or Tubing, Metallic, Flexible

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cory, Chas., Corp., Brooklyn, N. Y.
DeVilbiss Co., The, Toledo, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
H. D. B. Corporation, Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Ohio Rubber Co., The, Cleveland, Ohio.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Mill

(See "Hose, Cotton, and Cotton, Rubber Lined")

Hose, Oil

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Co., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Oxy-Acetylene

Air Reduction Sales Co., New York, N. Y.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Pittsburgh Thermoline Co., Pittsburgh.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco, Cal.
Weldit Acetylene Co., Detroit, Mich.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Paint Spray

American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.
Thermoid Rubber Co., Trenton, N. J.
United States Air Compressor Co., Cleveland, Ohio.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Radiator

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rotary Driller

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

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Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
H. D. B. Corporation, Chicago, Ill.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keating, E. F., Co., New York, N. Y.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rubber, Air

Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Stevens, Walden, Inc., Worcester, Mass. (Auto and bicycle)
Thermoid Rubber Co., Trenton, N. J.
United States Air Compressor Co., Cleveland, Ohio.
Whitehead Bros., Rubber Co., Trenton, N. J.

Hose, Rubber, Armored

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., The, Akron, O
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.

Hose, Rubber, Asbestos Covered

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Steam

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Keating, E. F., Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Suction

Allen & Billmyre Co., Inc., New York, N. Y.
American Metal Hose Branch of The American Brass Co., Waterbury, Conn.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Ideal Commutator Dresser Co., Sycamore, Ill.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Welding

(See "Hose, Oxy-Acetylene")

Housings, Valve

Clow, James B., & Sons, Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco.
S. E. T. Valve and Hydrant Co., New York.

Hubs, Saddle

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.

Humidifiers

American Air Filter Co., Inc., Louisville, Ky.
Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Buffalo Forge Co., Buffalo, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Emerson Electric Mfg. Co., The, St. Louis.
Grinnell Co., Inc., Providence, R. I.
Klipfel Mfg. Co., Chicago, Ill.
Modine Mfg. Co., Racine, Wis.
National Dry Kiln Co., The, Indianapolis, Ind. (Dry kiln)
Powers Regulator Co., The, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Co., Rochester, N. Y.

Hydrant Sets, Leather

(See "Sets, Hydrant, Leather")

Hydrants, Garage and Stable

American Foundry & Mfg. Co., St. Louis.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Railroad

American Foundry & Mfg. Co., St. Louis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Self-Closing

American Foundry & Mfg. Co., St. Louis.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Sprinkling

American Foundry & Mfg. Co., St. Louis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
M & H Valve & Fittings Co., Anniston, Ala.
Marion Malleable Iron Works, Marion, Ind.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Wall

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.

Hydrometers

Bristol Co., The, Waterbury, Conn.
Grinnell Co., Inc., Providence, R. I.
Moeller Instrument Co., Inc., Brooklyn.
Philadelphia Thermometer Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Victor Instrument Mfg. Co., Inc., New York, N. Y.

Idlers, Belt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Boice, W. B. & J. E., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo.
Fairfield Engineering Co., Marion, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich. (Conveyor)
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sutorbilt Corporation, Los Angeles, Cal.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Illuminators, Water Column

Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Incinerators

(See "Burners or Incinerators")

Indexing Fixtures for Machine Tools

(See "Fixtures, Indexing")

Indicators, Ammonia

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Linde Air Products, Inc., The, New York.
Trill Indicator Co., Corry, Pa.

Indicators, Combustion and Flue Gas

(See "Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide")

Indicators, Dial

Ames, B. C., Co., Waltham, Mass.
Federal Products Corp., Providence, R. I.
Standard Gage Co., Poughkeepsie, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Indicators, Flow

Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Brown Instrument Co., The, Philadelphia.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Nugent, Wm., & Co., Chicago, Ill.
Republic Flow Meters Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.

Indicators, Gas Engine

Bristol Co., The, Waterbury, Conn.
Trill Indicator Co., Corry, Pa.

Indicators, Hydraulic

Bristol Co., The, Waterbury, Conn.
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.

Indicators, Low Water

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.

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MUNCY, PA.

Cutler-Hammer, Inc., Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Pacific Mfg. & Equipment Co., San Francisco, Calif.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Indicators, Pyrometer

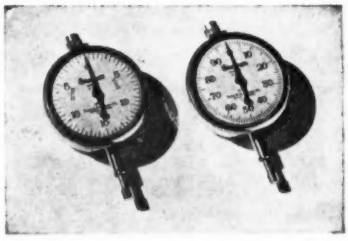
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Illinois Testing Laboratories, Inc., Chicago.
Leeds & Northrup Co., Philadelphia, Pa.
Republic Flow Meters Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Indicators, Specific Gravity

(See "Recorders and Indicators, Specific Gravity")

Indicators, Speed

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.



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Atkins, E. C., and Co., Indianapolis, Ind.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Cory, Chas., Corp., Brooklyn, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Starrett, L. S., Co., The, Athol, Mass.
Veeder-Root, Inc., Hartford, Conn.

Indicators, Steam Engine

Brown Instrument Co., The, Philadelphia.
Chicago Pneumatic Tool Co., New York.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Murray, William H., Richmond Hill, New York, N. Y.
Trill Indicator Co., Corry, Pa.

Indicators, Tank

Air-Way Pump Co., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Fisher Governor Co., The, Marshalltown, Iowa.

Indicators, Test, Lathe

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp, Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.
Zina Goodell Corp., Salem, Mass.

Indicators, Valve Movement

Brown Instrument Co., The, Philadelphia.
Clow, James B., & Sons, Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Ingots, Aluminum

Aluminum Industries, Inc., Cincinnati, O.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Federated Metals Corp., New York, N. Y.
Michigan Smelting & Refining Co., Detroit.

Ingots — Bronze, Copper, Brass, Composition, Magnesium, Nickel Silver, Red and Yellow Metal, Tin

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn. (Bronze, copper, composition, nickel silver, and red and yellow metal)
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (All)
Federated Metals Corp., New York, N. Y.
Michigan Smelting & Refining Co., Detroit, Mich. (All)
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa. (Bronze)
United American Metals Corp., Brooklyn, N. Y. (Tin)

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

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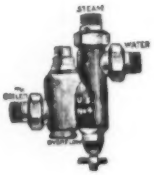
UMI

U. S. AUTOMATIC INJECTORS



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American Injector Co.
Detroit, Mich.

Injectors

American Injector Co., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.

Injectors, Locomotive

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Edna Brass Mfg. Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, Ohio.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.

Inks, Stencil and Marking

Matthews, Jas. H., & Co., Pittsburgh, Pa.
Pannier Bros. Stamp Co., Pittsburgh, Pa. (Sheet metal marking)

Inserts or Anchors, Concrete and Masonry

Arguto Oilless Bearing Co., Philadelphia.
Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Healy-Ruff Co., St. Paul, Minn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Modern Mfg. Co., The, Cleveland, Ohio.
Multi-Seal Manufacturing Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co., New York.
Rawlplug Co., The, Inc., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Security Insert Co., Philadelphia, Pa.
Truscon Steel Co., Youngstown, Ohio.
U. S. Expansion Bolt Co., New York, N. Y.

Instruments, Draughtsmen's and Engineers'

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
General Electric Co., Schenectady, N. Y.
Gilson Slide Rule Co., Stuart, Fla.
Grobet File Corp. of America, New York.
Gurley, W. & L. E., Troy, N. Y.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Keuffel & Esser Co., Hoboken, N. J.
Sampson Tool Co., Inc., New York, N. Y.

Instruments, Measuring and Testing

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
Federal Products Corp., Providence, R. I.
General Electric Co., Schenectady, N. Y.
Illinois Testing Laboratories, Inc., Chicago.
Leeds & Northrup Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Moeller Instrument Co., Inc., Brooklyn.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Veeder-Root, Inc., Hartford, Conn.

Instruments, Testing, Oil

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Insulating Material, Electric

Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Columbian Rope Co., Auburn, N. Y.
Continental-Diamond Fibre Co., Newark, Del.
Cook's, Adam, Sons, Inc., Linden, N. J.
Cutler-Hammer, Inc., Milwaukee, Wis.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hubbard & Co., Pittsburgh, Pa.
Keasbey & Mattison Co., Ambler, Pa.
Plymouth Manufacturing Co., Chicago, Ill.
Ralco Manufacturing Co., Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Sauereisen Cements Co., Pittsburgh, Pa.

Insulation, Conduit

(See "Filler or Insulation, Conduit")

Insulation, Waterproof, Underground Steam Line

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Menaugh & Co., Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Irons, Branding

General Electric Co., Schenectady, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Vulcan Electric Co., Lynn, Mass.

Irons, Gasket

Bernz, Otto, Co., Inc., Rochester, N. Y.

Irons, Plane

Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Electric Co., Lynn, Mass.

Irons, Soldering

(See "Coppers and Irons, Soldering")

Irons, Tuyere

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.

Jacks, Automatic Lowering

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Automobile and Motor Truck

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Shawver Co., The, Springfield, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Cable Reel

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Lewis-Shepard Co., Boston, Mass.
Stimmel Winch Co., Long Island City, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Car

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Horizontal

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, House Raising

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.

(Continued on page 170)

RAWL-ANCHORS

One Piece Double End — Can't be Used Wrongly

A one-piece, heavy-duty, double-expanding, double-ended masonry anchor for bolts. Foolproof—can't be installed improperly. It has tremendous holding power. A real demand, real profits, and a real Jobbers' Merchandising Plan to keep things humming. Write for details.

THE RAWLPLUG COMPANY, Inc.
97 Lafayette St., New York, N. Y.—and everywhere

Since 1899
Simplex Jacks
have served every need of every purchaser of
Mill Supplies
Templeton, Kenly & Co.
1020 S. Central Ave., Chicago.

THE DUFF-NORTON MANUFACTURING COMPANY

World's Largest Manufacturers of Jacks for Every Purpose

GENERAL OFFICES, Pittsburgh, Pa., U.S.A.

CANADIAN PLANT: The Canadian Duff-Norton Co., Ltd., Coaticook, P.Q., Canada

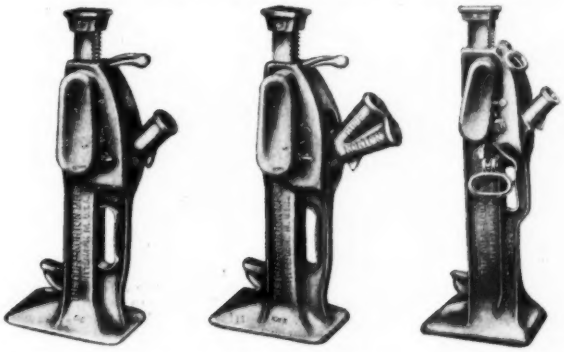
Branch Offices

250 Park Avenue NEW YORK, N. Y. | Peoples Gas Building CHICAGO, ILL. | Railway Exchange Bldg. ST. LOUIS, MO. | Union Natl. Bk. Bldg. HOUSTON, TEX. | Monadnock Building, SAN FRANCISCO, CAL.

PRODUCTS

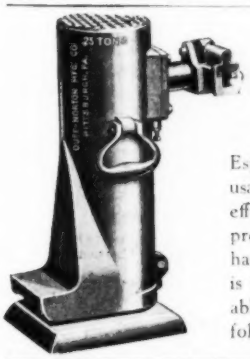
- Genuine Barrett Oil Well Jacks
- Genuine Barrett Automatic Lowering Jacks
- Norton Self-Lowering Screw Jacks
- Norton Standard Speed Screw Jacks
- Duff Governor Controlled Screw Jacks
- Duff Extensible Trench Braces
- Track Jacks—Push and Pull Jacks
- Automobile and Truck Jacks
- Jacks for every lifting purpose

THE NEW DUFF-NORTON AUTOMATIC LOWERING JACKS in 5, 10, 15 and 20 Ton Capacities



Equipped with the new and improved single unit Automatic Lowering device—a spring actuated mechanism that is self contained in a housing and can be easily removed from the jack for occasional adjustment or renewal after long service . . . incorporates the world famous genuine Barrett Mechanism . . . no loose pieces, bolts or nuts to adjust within the jack.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
516	5	16	9½	32	Greas	$16.00
1022	10	22	12½	60	Grope	25.00
1522	15	22	12¼	78	Grape	38.00
2028	20	28	18	94	Giant	45.00



THE 25 TON NORTON BALL BEARING BRIDGE AND WRECKING JACK — FOOT LIFT TYPE—No. B-2522

Especially suitable for rough outdoor usage . . . requires a minimum of effort to handle the heaviest loads . . . provided with convenient carrying handles on each side . . . foot lift is ideal for handling low loads. Available in two heights and two lifts as follows:—

Jack No.	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
B-2522	22	10¼	140	Adjust	$90.00
B-2526	26	14⅜	157	Atlas	96.00

THE DUFF-NORTON Genuine Barrett 4-Way General Purpose Jack No. 1523

The ideal all purpose jack of all trades . . . sturdily built yet extremely light in weight for capacity . . . conveniently handled and spotted.

Combines a number of lifting applications including (1) Straight Lifting with load applied on head, (2) Chain Lifting, (3) Hook Lifting and (4) Foot Lifting. Swivel base permits useful lifting at various angles and is equipped with positive locking latch for upright lifting. . . . Double Socket lever for effective operation in close and cramped quarters . . . an ideal one man jack with a multitude of uses. Capacity 15 tons. . . . Height 22½". . . Raise 12½". . . . Weight 67 lbs. . . . Code Word GENPU. . . . List Price complete with solid steel lever bar $48.00 . . . without chain or hooks $38.00.

DUFF-NORTON BALL BEARING JOURNAL JACK No. 2510-C

Small and light in weight . . . easy to carry as a lantern . . . easy to operate . . . rapid raising and lowering, powerful in lifting ability, absolutely safe up to rated capacity. Equipped with special Positive Stop Safety Feature which prevents standard from being run out of base. Furnished with 3 foot solid steel operating lever with pinch bar end.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
111-C	15	10	5	29	Cake	$25.00
2510-C	25	10	5	36	Claro	36.00
3510-C	35	10	5	50	Cisco	55.00
5010-C	50	10	4½	61	Cabol	95.00

NORTON SELF LOWERING SPEED CONTROLLED JACK

No. 7263C

A masterpiece in high speed, heavy duty jack design—will lift 25 to 100 tons with the utmost ease and safety—has semi-keyed standard permitting it to be quickly turned up or down by hand but rigidly held during operating. Lubrication of all parts is automatic, insuring long life and ease of operation. Possesses extra high lift—a distinct advantage.

Jack No.	Capacity Tons	Height Ins.	Raise Ins.	Weight Lbs.	Diam. in Base Ins.	Code Word	List Price
2261-BB	25	26	14	155	12	Ink	$125.00
3261-BB	35	26	14	190	12	Income	150.00
5261-BB	50	26	14	266	14	Ivy	210.00
7263-C	75	26	14	347	14	Cater	285.00
1263-C	100	26	14	358	14	Concur	305.00

UMI

Jacks, House Raising

(Continued from page 168)

Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.

Jacks, Hydraulic

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
General Electric Co., Schenectady, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Journal, or Low Height

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Wrought Products Co., Cleveland, Ohio.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
United Screw & Bolt Corp., Cleveland, Ohio.

Jacks, Lifting

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Clark Manufacturing Co., Philadelphia.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.

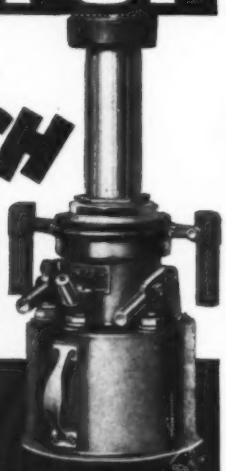
HYDRAULIC JACKS

Jacks for every lifting purpose, inside and outside pump types; high and low lift.

Jacks for use by Contractors, Builders, Dry Dock and Wrecking Companies, Machine Shops and in the Oil Fields—

The Watson-Stillman Company
100 Aldene Rd. Roselle, N. J.

LIFT UP OR PUSH 1 to 75 TONS



Blackhawk Hydraulics — speedy, smooth, powerful. Micro-precision raising and lowering. Some also have advantages of remote control. Blackhawk Engineers offer counsel on your industrial applications — without obligation.

BLACKHAWK MFG. COMPANY
Dept. MS-3 MILWAUKEE, WIS.

BLACKHAWK HYDRAULIC JACKS

Oliver-Barth Jack Co., Milwaukee, Wis.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Log

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Joyce-Cridland Co., The, Dayton, Ohio.
Link-Belt Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Mining

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Oil Well

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Sheldon Machine Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pneumatic

Curtis Pneumatic Machinery Co., St. Louis, Mo.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.

Jacks, Pole Pulling and Straightening

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Coffing Hoist Co., Danville, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pulling and Pushing

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Clark Manufacturing Co., The, Philadelphia, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Giant Mfg. Co., Council Bluffs, Iowa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Pump

(See "Pump Jacks")

Jacks, Pushing, Pipe

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Railroad Track

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw, Electric, for Locomotive and Car Lifting

Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw, Machinists'

Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Self-Lowering, Governor Controlled

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.

Jacks, Stone

Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Klemm Manufacturing Corp., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Telescopic

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Traversing

Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Tumbling Barrel

Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Jackscrews

California Screw Co., San Francisco, Cal.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jaws, Face Plate, for Chucks

Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.

Jaws, Pipe, for Vises

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Erie Tool Works, The, Erie, Pa.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Jaws, Vise

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Joint Runners

(See "Runners, Joint")

Jointers

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Perkins & Co., Grand Rapids, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Jointers, Saw Guide

(See "Rounders or Jointers, Saw Guide")

Jointing Machines, Saw

(See "Machines—Saw Filing, Setting and Jointing")

Joints, Ball and Socket

Clow, James B., & Sons, Chicago, Ill.
Conner, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morganmade, Inc., Keene, N. H.
Morrison Bros., Dubuque, Iowa.
Taylor Forge & Pipe Works, Chicago, Ill.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Joints, Pipe, Angle

American Rolling Mill Co., The, Middletown, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.

Joints, Pipe, Expansion

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

Joints, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Joints, Pipe and Tubing, Slip

Belfield, H., Co., Philadelphia, Pa.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hays Manufacturing Co., Erie, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Oster-Williams, Cleveland, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.

Joints, Pipe, Swing

Acheson Manufacturing Co., Rankin, Pa.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.
Williams, Franklin, Inc., Orange, N. J.

Joints, Universal, for Machinery

Boston Gear Works, Inc., North Quincy, Mass.
Chicago Die Casting Mfg. Co., Chicago.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Gray & Prior Machine Co., The, Hartford, Conn.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Kegs, Shop, Steel

Chapin, R. E., Mfg. Works, Batavia, N. Y.

Kettles, Acid and Chemical

Ampco Metal, Inc., Milwaukee, Wis.
Bucyrus Copper Kettle Works Co., The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Littleford Bros., Cincinnati, Ohio.

Kettles, Asphalt

Aeroil Burner Co., Inc., West New York, N. J.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Copper

Bucyrus Copper Kettle Works Co., The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Harris, Arthur, & Co., Chicago, Ill.

Kettles and Pots, Galvanizing

Buffalo Forge Co., Buffalo, N. Y.
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Kettles, Metal Melting

(See "Pots and Kettles, Metal Melting")

Kettles, Steam Jacketed

Bucyrus Copper Kettle Works, The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Littleford Bros., Cincinnati, Ohio.
Murray Iron Works Co., Burlington, Iowa.
Orr & Sembower, Inc., Reading, Pa.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Tar and Pitch

Aeroil Burner Co., Inc., West New York, N. J.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.

Keys, Center or Drift

Filer & Stowell Co., The, Milwaukee, Wis.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Keys, Gib

Chain Belt Co., Milwaukee, Wis.
Eaton Manufacturing Co., Massillon, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Medart Co., The, St. Louis, Mo.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.

Keys, Hydrant and Street Washer

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Economy Manufacturing Co., Philadelphia.
Hays Manufacturing Co., Erie, Pa.

Keys, Machine

Chain Belt Co., Milwaukee, Wis.
Eaton Manufacturing Co., Massillon, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.
Williams, J. H., & Co., New York, N. Y.

Keys, Offset

Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Keys, Spring

(See "Cotter Pins and Spring Keys")

Keys, Valve and Stop Cock

American Foundry & Mfg. Co., St. Louis.
Bastian-Blessing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Jenkins Bros., New York, N. Y. (Valve only)
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.

UMI

Keys, Woodruff

Eaton Manufacturing Co., Massillon, Ohio.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.
Whitney Mfg. Co., The, Hartford, Conn.

Keyseaters, Portable

Burr, John T., & Son, Brooklyn, N. Y.
Ryerson, Joseph T., & Son, Inc, Chicago.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Keyseating Machines

(See "Machines, Keyseating and Grooving")

Kits, Tool, Steel

Barcalo Mfg. Co., Buffalo, N. Y.
Kennedy Manufacturing Co., Van Wert, O.
Vichek Tool Co., The, Cleveland, Ohio.

Knives, Belt

Gustafson & Scott Mfg. Co., Chicago, Ill.
Manufacturers' Belt Hook Co., Chicago.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Tuck Mfg. Co., Brockton, Mass.

Knives, Chipping

Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Fletcher, Terry Co., The, Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.
Klein, M., & Son, Chicago, Ill.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.

Knives, Circular

Atkins, E. C., and Co., Indianapolis, Ind.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Knives—Cooperage, Leather, Paper and Veneer

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Ohio Knife Co., The, Cincinnati, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Taylor, Stiles & Co., Riegelsville, N. J.

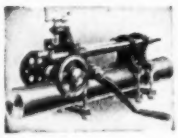
Knives, Draw

Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Knives, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Cowles Tool Co., Cleveland, Ohio.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Sandvik Saw, & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.

BURR KEYSEATERS



are used in thousands of Mills, Mines, and Factories all over the world. Repairs expedited — shut-downs often avoided. Should be in repair equipment of every large industry using transmission machinery.

Made in several sizes and types for hand and motor operation.

JOHN T. BURR & SON
433 Kent Avenue
BROOKLYN, N. Y.

Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Taylor, Stiles & Co., Riegelsville, N. J.

Knives, Putty

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Fletcher, Terry Co., The., Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Standard Belt Fastener Co., The, Unionville, Conn.

Knives, Rotary

Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Illinois Tool Works, Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.

Knurls

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Labels, Bin

Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Haddon Bin Label Co., Haddon Heights, N. J.

Lacers, Belt

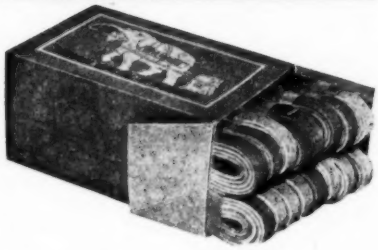
Armstrong-Bray & Co., Chicago, Ill.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Talcott, W. O. & M. W., Inc., Providence, R. I.
Washburn Co., The, Worcester, Mass.

Lacing, Belt, Gut

Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Eagle Belting Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.

Lacing, Belt, Leather and Rawhide

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Bonner & Barnewall, Inc., New York, N. Y.
Brooklyn Rawhide Mfg. Co., Brooklyn.
Buffalo Belting Works, Buffalo, N. Y.
California Tanning Co., St. Louis, Mo.
Chicago Rawhide Mfg. Co., The, Chicago.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Eagle Belting Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Holyoke Belting Co., Holyoke, Mass.
Johnson Belting Co., New York, N. Y.
McCauley Belting Co., Chicago, Ill.



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NEVERBREAK
Chrome Belt Lacing

That's because NEVERBREAK will give the finest service regardless of the conditions under which a belt is working.

That means an easier sales job, steady repeat business, lower stock carrying costs.

Consider these facts:

Neverbreak ½ inch lace, in a recent test, showed a tensile strength of 360 pounds. It retained a tensile strength of 325 pounds after being subjected to 240 degrees Fahrenheit for 60 consecutive hours. After Neverbreak becomes wet, it invariably dries back to its original soft and pliable state.

Would you like to make an experiment with this remarkable new lace? Write for *free* full length sample laces.

CALIFORNIA TANNING CO.
1905-7-9 Shenandoah Ave.
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AMERICAN SWISS
KNURLS

We carry a complete line of both hand and machine knurls. Special knurls made to order promptly.

Adjustable Knurl Holder

ONLY THE BEST

American Swiss File and Tool Co.
ELIZABETH, N. J.

CHICAGO RAWHIDE

C R MECHANICAL FASTENERS

Rawhide Pins
Cut Lacing
Side Lacing
Safety Lacing
for Belting

Chicago Rawhide Lacing. Hand cut, selected, stretched, tested and guaranteed, non-deteriorating. Mechanical tannage. Also Indian Tan, chrome tanned.
Chicago Rawhide Pins. Resilient, tough, hard rawhides. Finest made for all types metal belt lacing.
Safety Lacing — round, twisted, tough, flexible gut rawhide. The safest of all belt lacing.

Write for Catalog
Branches Everywhere
Chicago Rawhide Mfg. Co.
1286 Elston Ave., Chicago, U. S. A.

ALLIGATOR

TRADE MARK REG. U.S. PAT. OFFICE

STEEL BELT LACING

Alligator Steel Belt Lacing "Never Lets Go." The most universally used belt lacing on earth. Supplied in steel, "Monel Metal," and alloys in eleven sizes for belts up to 5/8 in. Standard boxes, "Handy Packages," and long lengths. The Alligator and size number are stamped on the lacing. Sold only through jobber-dealer trade channels.

Sole Manufacturers

FLEXIBLE STEEL LACING COMPANY

4633 Lexington Street CHICAGO

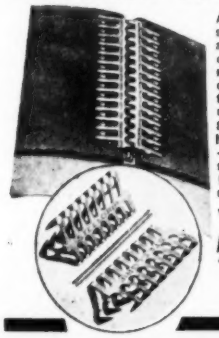
In England at 135 Finsbury Pavement, London, E.C.2

McLanathan, F. W., & Son, Lawrence, Mass.
Manufacturers' Belt Hook Co., Chicago.
Page Belting Co., Concord, N. H.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Lacing, Belt, Steel and Wire

Allen, W. D., Mfg. Co., Chicago, Ill.
Armstrong-Bray & Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Crescent Belt Fastener Co., New York.
Detroit Belt Lacer Co., Detroit, Mich.
Dick, R. & J., Co., Inc., Passaic, N. J.
Eagle Belting Co., Chicago, Ill.
Flexible Steel Lacing Co., Chicago, Ill.
Holyoke Belting Co., Holyoke, Mass.
Illinois Mechanical Leather Co., Chicago, Ill.
McCauley Belting Co., Chicago, Ill.

STEELGRIP
Flexible Belt Lacing



A stronger lacing (treated steel) for all transmission and conveyor belts. Goes on with hammer in few minutes. Compresses belt ends, prevents tearing or fraying. 2-piece hinged rocker pin takes up wear. 8 sizes in convenient boxes, handy cartons, long lengths—up to 72-inch always in stock. Also made of Monel Metal for use under corrosive conditions.

Write for catalog sheets.

Armstrong-Bray & Co.
"The Belt Lacing People"
307 N. Sheldon St.
Chicago, U. S. A.

Safety Belt-Lacer Co., Toledo, Ohio.
Talcott, W. O. & M. W., Inc., Providence, R. I.

Ladders, Boiler Room, Steel

Brownell Co., The, Dayton, Ohio.
Hubbard & Co., Pittsburgh, Pa. (Manhole)
Littleford Bros., Cincinnati, Ohio.

Ladders, Extension, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

Ladders, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Boyer Fire Apparatus Co., Logansport, Ind.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Ladders, Platform, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Dayton Safety Ladder Co., Cincinnati, O.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.

Ladders, Roller and Trolley

Milbradt Mfg. Co., St. Louis, Mo.
Myers, F. E., & Bro. Co., The, Ashland, O.
Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Ladders, Roofers'

Lyon, Conklin & Co., Inc., Baltimore, Md.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.

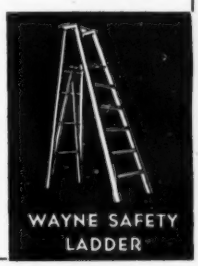
BAUER LADDERS
for Every Purpose

Bauer is the ideal line for Mill Supply Houses because it has outstanding quality features which help make sales.

Bauer Countersunk rungs and double-dipped tenons actually make Bauer ladders 30% stronger.

SEND FOR CATALOG AND PRICE LISTS

The BAUER Mfg. Co.
Wooster, Ohio

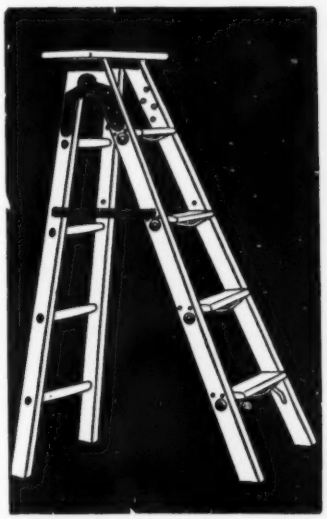


Ladders, Step

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

Ladles—Metal Melting, Skimming and Pouring

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car and Foundry Co., New York.
American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eberhard Mfg. Co., Cleveland, Ohio.
Hollands Mfg. Co., Erie, Pa.
Johnson, William, Inc., Newark, N. J.
Marion Malleable Iron Works, Marion, Ind.
Peck, Stow & Wilcox Co., Southington, Conn. (Metal melting only)



RICH Safe Spruce Ladders
for every purpose

Rich Ladders are unequalled for safety and durability. Light in weight, yet sturdily built of carefully selected, air-dried spruce. The complete line of Rich Ladders includes Extension, Sectional, Paperhangers', Decorators', Rodded Ladders, etc. Write for attractive catalog.

The Rich Pump and Ladder Co.
Cincinnati, Ohio

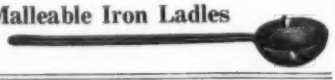
HOLLANDS

Long Lip Pouring Ladles

Malleable Bowl
Steel Handle, Wood Grip

Diameter of Bowl Inches	Length Overall Inches	Length of Lip Inches	Capacity Pounds	Weight Each	List Price Each
3	17	2	2½	1½ lbs.	$0.50
4	19	2¾	5	2 lbs.	.70
5	21	3¼	12	3 lbs.	1.00

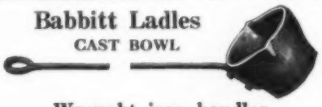
Malleable Iron Ladles



Diameter Inches	Length Inches	Capacity Pounds	Weight Per Doz.	List Price Per Doz.
2½	13	1	9 lbs.	$2.40
3	13	1½	10 lbs.	3.00
3½	15½	2½	14 lbs.	4.00
4	16	3½	17 lbs.	4.80
5	19	7	24 lbs.	6.00
6	21	12	30 lbs.	7.20

Babbitt Ladles

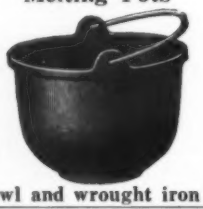
CAST BOWL



Wrought iron handles.

Diam. Inches	Capacity Pounds	Quarts	Weight Pounds	Length Over All	List Price Each
6	25	1	7	32 In.	$2.40
8	50	2	12	45 In.	3.60
10	100	4	20	52 In.	6.00

Melting Pots

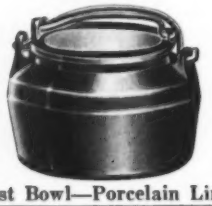


No. 1

Cast bowl and wrought iron handle.

Diameter Inches	Depth Inches	Capacity Pounds	Weight Pounds	List Price Each
4	2¼	8	2	$0.40
5	2¾	10	2½	.50
6 Spl.	3	15	3	.60
6	3½	20	4	.70
7	3¾	25	5	1.00
8	4¼	35	6	1.40
9	5¼	60	10	2.00
10	5¾	90	15	2.80
No. 2—With Lip and Tilting Fixture.				
12	7½	175	24	4.20
13½	8	200	28	5.40
15	10	300	60	9.00

Glue Pots



Cast Bowl—Porcelain Lined

No.	Capacity	List Per Doz.
000	½ Pint	$8.40
00	¾ Pint	9.60
0	1 Pint	10.20
1	1½ Pint	12.00
2	2 Pint	14.40

SEND FOR CATALOG NO. 36

HOLLANDS MFG. COMPANY
ERIE, PA. U. S. A.

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rowell Mfg. Co., Appleton, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Unique Manufacturing Co., Inc., Chicago.

Ladles, Steel

Clayton & Lambert Mfg. Co., Detroit, Mich.
Johnson, William, Inc., Newark, N. J.

Lagging, Pulley

(See "Covering, Pulley")

Lamps, Acetylene

Justrite Manufacturing Co., Chicago, Ill.
National Carbide Sales Corp., New York.

Lamps, Carbide

Justrite Manufacturing Co., Chicago, Ill.
National Carbide Sales Corp., New York.
Ohlen-Bishop Co., The, Columbus, Ohio.

Lamps, Electric, Portable, Adjustable and Extension

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Bussmann Mfg. Co., St. Louis, Mo.
Creamer Glass Works, Millville, N. J.
Euclid Rubber Co., Cleveland, Ohio.
Fostoria Pressed Steel Corp., The, Fostoria, Ohio.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hygrade Sylvania Corp., Salem, Mass.
Jewel Incandescent Lamp Co., E. Newark, N. J.
Koehler Mfg. Co., Marlboro, Mass.
Martindale Electric Co., Cleveland, Ohio.
McGill Manufacturing Co., Valparaiso, Ind.
Mine Safety Appliances Co., Pittsburgh.
Northern Incandescent Lamp Co., Hoboken, N. J.
Perkins Marine Lamp Corp., Brooklyn.

Lamps, Electric, Theft Proof

Kulp Electric Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.

Lamps, Engineers' Hand

Justrite Manufacturing Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Perkins Marine Lamp Corp., Brooklyn.

Lamps, Incandescent

Champion Lamp Works, Lynn, Mass.
General Electric Co., Incandescent Lamp Dept., Cleveland, Ohio.
Hygrade Sylvania Corp., Salem, Mass.
Jewel Incandescent Lamp Co., East Newark, N. J.
Kulp Electric Co., Chicago, Ill.
Westinghouse Lamp Co., New York, N. Y.

Lamps, Miners' Safety

Handlan-Buck Mfg. Co., St. Louis, Mo.
Mine Safety Appliances Co., Pittsburgh.
Scovill Mfg. Co., Waterbury, Conn.

Lamps, Railway Signal

General Electric Co., Schenectady, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Lanterns—All Kinds

Dietz, R. E., Co., New York, N. Y.
Embury Mfg. Co., Warsaw, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
National Carbide Sales Corp., New York, N. Y. (Carbide)
Perkins Marine Lamp Corp., Brooklyn, N. Y. (Marine)

Lanterns, Electric, Dry Battery

American-LaFrance and Foamite Corp., Elmira, N. Y.
Burgess Battery Co., Freeport, Ill.
Economy Electric Lantern Co., Inc., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Lapping Machines

(See "Machines, Lapping")

Laterals, Pipe

(See "Pittings, Pipe")

Lath, Metal, Expanded

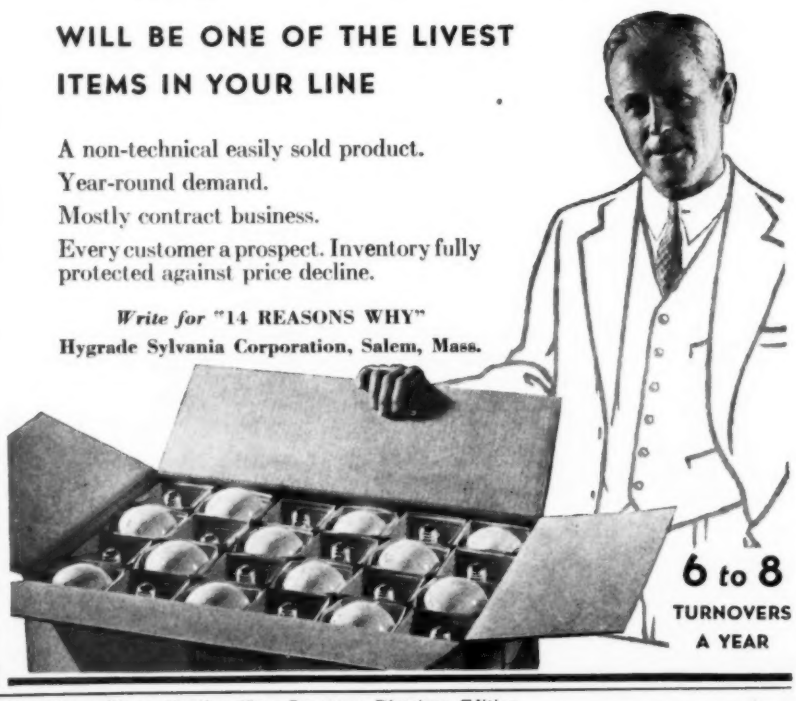
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Edwards Manufacturing Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

Hygrade Lamps

WILL BE ONE OF THE LIVEST ITEMS IN YOUR LINE

A non-technical easily sold product.
Year-round demand.
Mostly contract business.
Every customer a prospect. Inventory fully protected against price decline.

Write for "14 REASONS WHY"
Hygrade Sylvania Corporation, Salem, Mass.



6 to 8 TURNOVERS A YEAR

Lathe Attachments

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Craley, C. C., Mfg. Co., Shillington, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Layth-Grindar Corp., Orange, N. J.
Monarch Machine Tool Co., The, Sidney, O.
Plomb Tool Co., Los Angeles, Calif.
Pratt & Whitney Co., Hartford, Conn.
Reed Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
South Bend Lathe Works, South Bend, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Axle

Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, Bench

Ames, B. C., Co., Waltham, Mass.
Blount, J. G., Co., Everett, Mass.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heston & Anderson, Fairfield, Iowa.
Millers Falls Co., Greenfield, Mass.
Moseley Lathe Co., The, Elgin, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.
Swayne-Robinson & Co., Richmond, Ind.
Van Norman Machine Tool Co., Springfield, Mass.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Buffing and Polishing

(See "Machines, Buffing and Polishing")

Lathes, Chucking

Baird Machine Co., The, Bridgeport, Conn.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Monarch Machine Tool Co., The, Sidney, O.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., Cleveland, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Thomas Elevator Co., Chicago, Ill.

Lathes, Combination Metal and Woodworking

Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Crankshaft

Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
South Bend Lathe Works, South Bend, Ind.

Lathes, Engine

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bradford Machine Tool Co., Cincinnati, O.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Foot Power

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

Lathes, Gap

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
South Bend Lathe Works, South Bend, Ind.

Lathes, Garage

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Geared Head

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, General Purpose

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Hand

Brown & Sharpe Mfg. Co., Providence, R. I.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Oliver, W. W., Mfg. Co., The, Buffalo.

Lathes, Heavy Duty

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sundstrand Machine Tool Co., Rockford, Ill.

Lathes, Laboratory

Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Hammel, Riglander & Co., Inc., New York.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.

Lathes, Manual Training

Blount, J. G., Co., Everett, Mass.
Boice, W. B. & J. E., Toledo, Ohio.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Rockford Machine Tool Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Swayne-Robinson & Co., Richmond, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Metal Spinning

Delta Mfg. Co., Milwaukee, Wis.
Ferracute Machine Co., Bridgeton, N. J.
Swayne-Robinson & Co., Richmond, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

Lathes, Precision

Ames, B. C., Co., Waltham, Mass.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hjorth Lathe and Tool Co., Woburn, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Monarch Machine Tool Co., The, Sidney, O.
Moseley Lathe Co., The, Elgin, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Screw Cutting

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.
Warner & Swasey Co., The, Cleveland, O.

Lathes, Speed

Boice, W. B. & J. E. Toledo, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Monarch Machine Tool Co., The, Sidney, O.
Oliver Machinery Co., Grand Rapids, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Sheldon Machine Co., Chicago, Ill.

Lathes, Tool Room

Ames, B. C. Co., Waltham, Mass.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Monarch Machine Tool Co., The, Sidney, O.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Turret

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Greenlee Bros. & Co., Rockford, Ill.
National Acme Co., The, Cleveland, Ohio.
South Bend Lathe Works, South Bend, Ind.
Warner & Swasey Co., The, Cleveland, O.

Lathes, Wood Turning

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Delta Mfg. Co., Milwaukee, Wis.
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Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heston & Anderson, Fairfield, Iowa.
Mattison Machine Works, Rockford, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.

UMI

Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Sheldon Machine Co., Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Lead, Battery

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Federated Metals Corp., New York, N. Y.
Consolidated Metal Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
National Lead Co., New York, N. Y.

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Harris Calorific Co., The, Cleveland, O.
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K-G Welding & Cutting Co., Inc., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Turner Brass Works, The, Sycamore, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Lead, Calking

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Buckeye Brass & Mfg. Co., The, Cleveland.
Canfield, M. C., Sons Co., Newark, N. J.
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Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit, Mich.
Murphy, E. L., Chicago, Ill.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
United American Metals Corp., Brooklyn.

Lead, White and Red

Eagle-Picher Lead Co., The, Chicago, Ill.
National Lead Co., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.

Lead Wool

(See "Wool, Lead")

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(See "Belting, Leather")

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(See "Stands, Range Boiler")

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Letters and Figures, Brass

Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sargent & Co., New Haven, Conn.

Letters and Figures, Pattern

Chain Products Co., Cleveland, Ohio.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Knight, H. W., & Son, Seneca Falls, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Ruleta Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.

Levels—Architects', Contractors', Surveyors' and Engineers'

Dietzgen, Eugene, Co., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Bench

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Carpenters' and Masons'

Detroit Metal Spinning Co., Inc., Detroit.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Peerless Level & Tool Co., The, Sterling, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Machinists'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Millwrights'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.

Levels, Pocket

Dietzgen, Eugene, Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Peerless Level & Tool Co., The, Sterling, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Track

Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

Lifters, Cotter Pin

Billings & Spencer Co., The, Hartford, Conn.
Vichek Tool Co., The, Cleveland, Ohio.

Lifters, Valve, Gasoline Engine

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
K-D Manufacturing Co., Lancaster, Pa.
Miller Tool & Mfg. Co., Inc., Detroit.
Millers Falls Co., Greenfield, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vichek Tool Co., The, Cleveland, Ohio.

Lights, Electric

(See "Lamps, Electric")

Lights, Flare, Contractors'

Dietz, R. E., Co., New York, N. Y.
National Carbide Sales Corp., New York.
Sight Feed Generator Co., Richmond, Ind.

Lights, Flood, Acetylene

Sight Feed Generator Co., The, Richmond, Ind.

Lights, Flood, Electric

Asch & Co., Inc., New York, N. Y.
Benjamin Electric Manufacturing Co., Des Plaines, Ill.

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Mine Safety Appliances Co., Pittsburgh, Pa. (Portable)

Lining, Boiler Furnace

Botfield Refractories Co., Philadelphia.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N. Y.

Lining, Brake

American Brake Materials Corp., Detroit.
Asbestos Mfg. Co., Huntington, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather)
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Johns-Manville, New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Lining, Chute, Rubber

Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Manhattan Rubber Mfg. Division, The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.

Lining, Sheave, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pyott Foundry & Machine Co., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Thermoid Rubber Co., Trenton, N. J.

Lining, Sieve

Victor Balata & Textile Belting Co., New York, N. Y.

Links and Rings, Balata

Victor Balata & Textile Belting Co., New York, N. Y.

Links, Connecting, Chain

Chain Belt Co., Milwaukee, Wis.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Links, Fusible

Cleveland Chain & Mfg. Co., Cleveland.
General Electric Co., Schenectady, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jefferson Electric Co., Bellwood, Ill.
Newhall Chain Forge & Iron Co., New York.
Safety Fire Extinguisher Co., The, New York, N. Y.
Western Products, Inc., Newcastle, Ind.

Links, Repair, Chain

American Chain Co., Inc., Bridgeport, Conn.
Carroll Chain Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., Cleveland, O.
Eberhard Mfg. Co., Cleveland, Ohio.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York.
Nixdorff-Krein Mfg. Co., St. Louis, Mo.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Thomas Laughlin Co., The, Portland, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

Loaders, Car

Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Lockers, Metal

All-Steel Equip Co., Inc., Aurora, Ill.
Art Metal Construction Co., Jamestown, N. Y.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Lockers, Steel, Engineers' Equipment

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Locknuts, Machine

Acme Machine Products Co., Muncie, Ind.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.

Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rawlplug Co., Inc., New York, N. Y.
S.K.F. Industries, Inc., Philadelphia, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Locknuts, Pipe

Acheson Manufacturing Co., Rankin, Pa.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhn Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
United Screw & Bolt Corp., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Lock Washers

(See "Washers, Lock")

Locks, Door

Eagle Lock Co., Terryville, Conn. (Also cabinet locks)
Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Locks, Lamp

Interlocking Products Co., New York, N. Y.
McGill Manufacturing Co., Valparaiso, Ind.
Mine Safety Appliances Co., Pittsburgh, Pa.

Long Screws

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, The, Baltimore, Md. (Brass)
Rochester Machine Screw Co., Rochester.
United American Bosch Corp., Springfield, Mass.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.

Lubricating Systems, High Pressure

Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Manzel Brothers Co., Buffalo, N. Y.
United American Bosch Corp., Springfield, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Victor Lubricator Co., Chicago, Ill.

Lubricants

(See "Grease," "Oil," "Compounds" and "Dressing")

Lubricators

(For lubricators not listed in the following classifications, see "Oilers.")

Lubricators, Air Brake

American Injector Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keckley, O. C., Co., Chicago, Ill.

Lubricators, Air Compressor

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Kellogg Manufacturing Co., Rochester.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Automatic Overhead Conveyor

Saginaw Stamping & Tool Co., Saginaw, Mich.
Victor Lubricator Company, Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Lubricators, Candle, for Shafting and Loose Pulleys

Hunter Pressed Steel Co., Lansdale, Pa.
Strong Machy. & Supply Co., New York.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Cylinder

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.

Lubricators, Engine

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Force Feed

Alemite Corp., Chicago, Ill.
Arcadia Lubricator Co., Long Beach, Calif.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Greene, Tweed & Co., New York, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.

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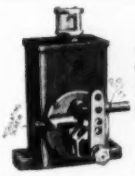
Ohio Grease Co., The, Loudonville, O.
Ohio Injector Co., The, Wadsworth, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Swift Lubricator Co., Elmira, N. Y.
Turner Brass Works, The, Sycamore, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators and Oil Cups, Gas Engine

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bay State Stamping Co., Worcester, Mass.
Bowen Products Corp., Auburn, N. Y.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hart Packing Co., Boston, Mass.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.



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Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Graphite

Alemite Corp., Chicago, Ill.
Bowser, S. F., & Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Sauereisen Cements Co., Pittsburgh, Pa.

Lubricators, Hand Pressure

Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Eagle Manufacturing Co., Wellsburg, W. Va.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lidseen, Gustave, Inc., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Grease Co., The, Loudonville, Ohio.
Plews Oiler Co., Minneapolis, Minn.
Swift Lubricator Co., Elmira, N. Y.

Lubricators, Locomotive

Detroit Lubricator Co., Detroit, Mich.
Eagle Manufacturing Co., Wellsburg, W. Va.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Loose Pulley

(See "Cups, Oil, Loose Pulley" and "Lubricators, Candle")

Lubricators, Machinery, High Pressure

Adams Grease Gun Corp., New York, N. Y.
Alemite Corp., Chicago, Ill.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Multiple

Alemite Corp., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, O.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
Nugent, Wm. W., & Co., Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Plain Engine

Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Shafting

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Sight Feed

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hills-McCanna Corp., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Grease Co., The, Loudonville, Ohio.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Telescopic

Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Lubricators, Valve Stem

Consolidated Brass Co., Detroit, Mich.
Edna Brass Mfg., Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Lugs, Boiler and Tank

Illinois Malleable Iron Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
National Malleable & Steel Castings Co., Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Lugs, Thread

Ideal Commutator Dresser Co., Sycamore, Ill.

Machine for Sharpening Rock Bits

Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Machines or Ways, Balancing

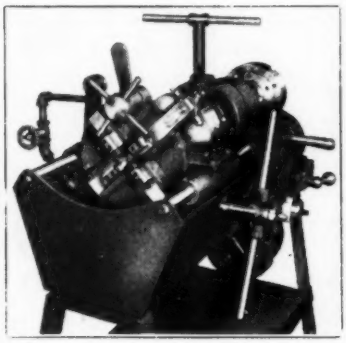
Anderson Bros. Mfg. Co., Rockford, Ill.
Gisholt Machine Co., Madison, Wis.
Sunstrand Machine Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Machines, Band Saw, for Metal

Acme-Detroit Saw Corp., Detroit, Mich.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Avey Drilling Machine Co., The, Cincinnati, Ohio.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Jones Superior Machine Co., Chicago, Ill.
Klemm Manufacturing Corp., Chicago, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tessmer Machine & Tool Co., Detroit.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Machines, Band Saw, for Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Sawmill)
Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Covel Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.



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—for detachable bits is threaded, turned and faced with the "TOLEDO" Rock Drill Rod Machine.

Handles Timken, Ingersoll-Rand or Crucible Rod.

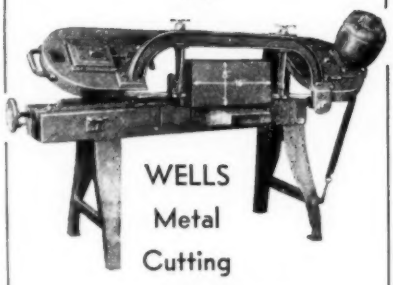
Floor to floor time for Timken 7/8" rod is approximately 4 minutes; 1 5/16" Rod 5½ minutes. This time can be reproduced regularly by any experienced operator.

Portable. Front and rear chucks. Separate head for each size. Dies can be reground many times.

Full details sent on request.

THE TOLEDO PIPE THREADING MACHINE CO., TOLEDO, OHIO
NEW YORK OFFICE, 72 LAFAYETTE ST.

Dealers Wanted
for



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Metal
Cutting
BAND SAWS

Don't miss this chance to build up your sales volume and add to your profits. Every metal working plant is a prospect for this modern speedy unit. Used in toolroom and maintenance work, **every trial installation has produced a sale.** Satisfied and enthusiastic users help you sell other prospects. Continuous cutting without coolant, extreme precision, rapid adjusting swivel vise and long blade life are some of the advantages that help this machine to practically sell itself to your customers. Write for full details today.

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Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Maurey Manufacturing Corp., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Power, L., & Co., Philadelphia, Pa.
Racine Tool & Machine Co., Racine, Wis.
Towsley, John T., Mfg., Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Wood, H. C. Machine Works, San Francisco, Calif.

Machines, Belt Lacing

(See "Lacers, Belt")

Machines, Bending, Pipe

American Foundry Equipment Co., Mishawaka, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Leonard Machine Works, Lansdowne, Pa.
Parker Appliance Co., The, Cleveland, O. (For copper pipe)
Sampson Tool Co., Inc., New York, N. Y.
Skinner, M. B., Co., South Bend, Ind.
Tallman Mfg. Co., Shelbyville, Ill.
Tube-Turns, Inc., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.
Wood, R. E., & Sons, Chester, Pa.

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Dudgeon, Richard, Inc., New York, N. Y.
Farrell-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lidseen, Gustave, Inc., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Mfg. Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Machines, Bending, "U"

American Foundry Equipment Co., Mishawaka, Ind.
Champion Blower and Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Mo.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Parker Appliance Co., The, Cleveland, O.
Rock River Machine Co., Janesville, Wis.
Tube-Turns, Inc., Louisville, Ky.
Wood, R. E., & Sons, Chester, Pa.

Machines, Blasting

Hercules Powder Co., Inc., Wilmington, Del.

Machines—Bolt, Nut and Rivet

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Facers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Machines—Boring, Drilling and Milling Combined

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., The, Rockford, Ill.
International Nickel Co., Inc., The, New York, N. Y.
Knight, W. B., Machinery Co., St. Louis.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Machines, Boring, Wood

Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill. (Joist and rafter)
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill. (For borrowing ties)
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco., Calif.

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Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barnes Drill Co., Rockford, Ill.
Bickford, H., & Co., Lakeport, N. H.
Bullard Co., The, Bridgeport, Conn.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Covel-Hanchett Co., Big Rapids, Mich.
Hanchett Mfg. Co., Big Rapids, Mich.
Unique Manufacturing Co., Inc., Chicago.

Machine, Broaching

Burr, John T., & Son, Brooklyn, N. Y.
Grobet File Corp. of America, New York.
Hannifin Mfg. Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.

Machines, Buffing, Electric, Portable

Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Marathon Electric Mfg. Co., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., Cincinnati, Ohio.
Standard Electrical Tool Co., Cincinnati.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Buffing, Flexible Shaft

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Haskins, R. G., Co., Chicago, Ill.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Buffing, Pneumatic

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Chicago Pneumatic Tool Co., New York.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Haskins, R. G., Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
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Baldor Electric Co., St. Louis, Mo.
Black & Decker Mfg. Co., Towson, Md.

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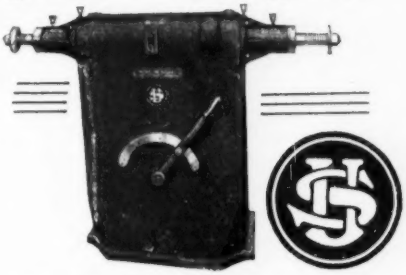
—the right buffing and polishin machine for every applicatio



Model 95, illustrated herewith, is a heavy duty buffer developed by our engineers to meet the need for speeds in buffing and polishing which are not available in direct connected alternating current units of standard cycle. Four speeds are obtainable, which can be changed about simply.

Distributors can render their customers an outstanding service with the complete line of U. S. Buffers and Polishers. At the same time, they can build a fine and profitable sales volume with this exceptional line.

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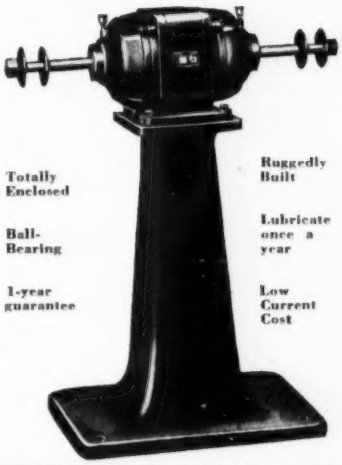
BUFFERS



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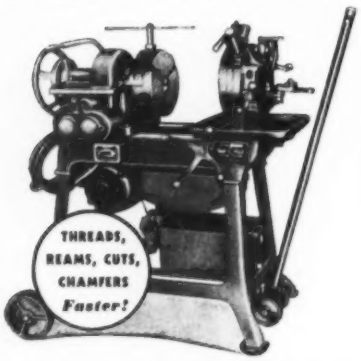
COMPLETE PIPE FITTERS MACHINE



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Famous DOUBLE-QUICK *Automatic Die Head*
No Die Changing
No "Backing Off"
Accurate Size, Uniform Length threads
Can be had as Power Drive only. Effects tremendous labor saving on 2½ to 12" pipe.
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Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Cutter Machine Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Divine Brothers Co., Utica, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Forbes & Myers, Worcester, Mass.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Marathon Electric Mfg. Co., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Robinson Mfg. Co., Waterbury, Conn.
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Schauer Machine Co., The, Cincinnati, O.
Speedway Manufacturing Co., Cicero, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland.
Torrington Mfg. Co., The, Torrington, Conn.
U. S. Electrical Motors, Inc., Los Angeles.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines, Burnishing

(See "Barrels, Burnishing," and "Machines, Buffing and Polishing")

Machines, Burring

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt & Whitney Co., Hartford, Conn.

Machines, Centering

Pratt & Whitney Co., Hartford, Conn.
Sundstrand Machine Tool Co., Rockford, Ill.

Machines, Chucking

(See "Lathes, Chucking," and "Lathes, Turret")

Machines, Cleaning, for Metal Parts

American Foundry Equipment Co., Mishawaka, Ind.
Baird Machine Co., The, Bridgeport, Conn.
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Leiman Bros., Inc., Newark, N. J.
Mall Tool Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.
Schauer Machine Co., The, Cincinnati, O.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Machines, Counting

Durant Mfg. Co., Milwaukee. Wis.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Veeder-Root, Inc., Hartford, Conn.

Machines, Cutting, Electric—Marble, Slate, Stone, Tile, Etc.

American Chain Co., Inc., Bridgeport, Conn.
Campbell, Andrew C., Division, Bridgeport, Conn.
Cincinnati Electrical Tool Co., Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

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Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
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Union Twist Drill Co., Athol, Mass.

Machines, Cutting and Threading, Pipe

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Armstrong Manufacturing Co., Bridgeport, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Beaver Pipe Tools, Inc., Warren, Ohio.
Chicago Pipethread Machine Co., Racine, Wis. (Power pipe threading machines)
Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
Geometric Tool Co., The, New Haven, Conn.
Merrell Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Peerless Machine Co., Racine, Wis. (Power pipe threading machines)
Ridge Tool Co., Elyria, Ohio.
Strickler, W. W., & Brothers, Columbus, O. (Cutting only)
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

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American Chain Co., Inc., Bridgeport, Conn.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R.I.
Buffalo Forge Co., Buffalo, N. Y.
Burr, John T., & Son, Brooklyn, N. Y.
Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Consolidated Machine Tool Corp. of America, Rochester, N. Y.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Modern Machine Tool Co., Jackson, Mich. (Lathe type)
Niagara Machine & Tool Works, Buffalo.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Peerless Machine Co., Racine, Wis.

Portable Power Tool Corp., Warsaw, Ind.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.

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Illinois Tool Works, Chicago, Ill.
LaPorte Machine & Tool Co., LaPorte, Ind. (Die filing and sawing)
Mall Tool Co., Chicago, Ill.
Oliver Machinery Co., Grand Rapids, Mich.
Pratt & Whitney Co., Hartford, Conn.
Robinson Mfg. Co., Waterbury, Conn.
Rockford Drilling Machine Co., Rockford.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Thurston Mfg. Co., Providence, R. I.

Machines, Die Sinking

Billings & Spencer Co., The. Hartford.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Knight, W. B., Machinery Co., St. Louis.
LaPorte Machine & Tool Co., LaPorte, Ind.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Preis, H. P., & Co., Inc., Newark, N. J.
Reed-Prentice Corp., Worcester, Mass.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Machines, Doweling

Gustafson & Scott Mfg. Co., Chicago, Ill.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Drilling, Automatic

Avey Drilling Machine Co., The, Cincinnati, Ohio.
Baker Bros., Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Co., Rockford.

No. 999 ½" to 2"

PIPE MACHINES

—of proven superiority.

"TOLEDO" Pipe Machines in the popular ranges are speedy, accurate, dependable.

Compact, easy to operate. Cut, thread and ream pipe faster. No. 999 ½" to 2". 2" High Speed ½" to 2". No. 1-2-4 1" to 4".

Catalog on request.

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TOLEDO, OHIO
NEW YORK OFFICE & DISPLAY
72 LAFAYETTE ST.

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Ryerson, Joseph T., & Son, Inc., Chicago.
Steele, W. M., Co., Worcester, Mass.

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Barnes, W. F. & John, Co., Rockford, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Boice, W. B. & J. E., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electrical Tool Co., Inc., The, New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Blacksmiths'

(See "Machines, Drilling, Post or Wall")

Machines, Drilling, Boilermakers'

Buffalo Forge Co., Buffalo, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Drilling—Breast, Chain and Hand

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Hunter, James, Machine Co., North Adams, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Drilling, Close Quarter

Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Drilling, Coal

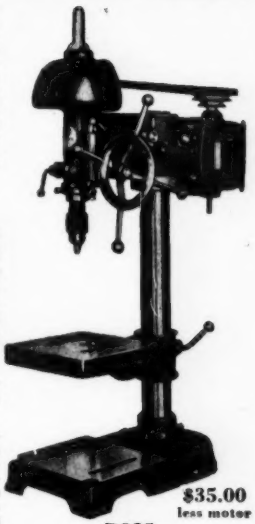
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll-Rand Co., New York, N. Y.
Leetonia Tool Co., The, Leetonia, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Electric, Portable

(See "Drills, Electric, Portable")

DRIVER Drill Press Leader No. 1*

Advance sales lead us to believe that this is one of the many Driver Tools which will lead the power tool field for the coming year. See other advertisements this issue. (Pages 146 & 185.)



Features

New six splined spindle reduces vibration. New standard and slow speed pulleys are interchangeable and available separately. 4 SKF Ball bearings.

Jacobs Key Chuck standard equipment.

Only Driver—with its large production requirements—could combine so many worthwhile features—so much real value—into a drill press at this price. This is just one of the many power tools in the complete Driver line that is going to open big, new markets for you.

$35.00 less motor
D925

For additional information on this tool and others in the complete Driver line write to Dept. MS1.

Walker-Turner Co. Inc. Plainfield, New Jersey

Machines, Drilling, Electric, Stationary

Barnes, W. F., & John Co., Rockford, Ill.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Louisville Electric Manufacturing Co., Louisville, Ky.
National Automatic Tool Co., The, Richmond, Ind.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sibley Machine & Foundry Co., South Bend, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Drilling, Flexible Shaft

Dumore Co., The, Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Drilling, Friction Disc Drive

Barnes, W. F. & John, Co., Rockford, Ill.
Clark, James, Jr. Electric Co., Louisville.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Power Plant Specialty Co., Chicago, Ill.

Machines, Drilling, Gang

(See "Machines, Drilling, Multiple Spindle or Gang")

UMI

Machines, Drilling and Tapping, for Gas and Water Mains

Hays Manufacturing Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Stow Mfg. Co., Inc., Binghamton, N. Y.

Machines, Drilling, Heavy Duty

Baker Bros., Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Moline Tool Co., Moline, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sibley Machine & Foundry Co., South Bend, Ind.

Machines, Drilling, Horizontal

Baird Machine Co., The, Bridgeport, Conn.
Baker Bros., Inc., Toledo, Ohio.
Barnes, W. F. & John, Co., Rockford, Ill.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Drilling, Multiple Spindle or Gang

Avey Drilling Machine Co., The, Cincinnati, Ohio.
Baird Machine Co., The, Bridgeport, Conn.
Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Sibley Machine & Foundry Co., South Bend, Ind.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Pneumatic

Buckeye Portable Tool Co., The, Dayton, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Gardner-Detroit Co., Quincy, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Post or Wall

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Hisey-Wolf Machine Co., The, Cincinnati.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Sibley Machine & Foundry Co., South Bend, Ind.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Radial

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Drilling, Railroad Track

Aldon Co., The, Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Mall Tool Co., Chicago, Ill.
Moline Tool Co., Moline, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Drilling, Rock

Buffalo Forge Co., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Gardner-Denver Co., Quincy, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Machines, Drilling, Sensitive

Avey Drilling Machine Co., The, Cincinnati, Ohio.
Ames, B. C., Co., Waltham, Mass.
Burke Machine Tool Co., The, Conneaut, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Clark, James, Jr., Electric Co., Louisville
Delta Mfg. Co., Milwaukee, Wis.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Leiman Bros., Inc., Newark, N. J.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford, Ill.
Rockford Machine Tool Co., Rockford, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sibley Machine & Foundry Co., South Bend, Ind.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Walker-Turner Co., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines, Drilling, Upright

Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Leiman Bros., Inc., Newark, N. J.
Moline Tool Co., Moline, Ill.
Richards Badgar Packard Co., Milwaukee.
Rockford Drilling Machine Co., Rockford, Ill.
Rockford Machine Tool Co., Rockford, Ill.
Sibley Machine & Foundry Co., South Bend, Ind.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Machines and Tools, Drilling, Well

Crucible Steel Co. of America, New York.
Independent Pneumatic Tool Co., Chicago.
Loane Engineering Co., Baltimore, Md.
Loomis Machine Co., Tiffin, Ohio.
Pratt & Whitney Co., Hartford, Conn.

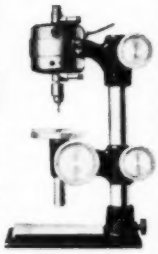
Machines, Filing and Setting, Band Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Foley Manufacturing Co., Minneapolis.
Holcomb, A. L., Co., Grand Rapids, Mich.
Rogers, Samuel, & Co., Buffalo, N. Y.
Swett, Frank W., & Son, Chicago, Ill.

Machines, Filing, Sawmill and Machine Shop

Atkins, E. C., and Co., Indianapolis, Ind.
Crowell, D. J., & Crowell, F. J., Buffalo.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Swett, Frank W., & Son, Chicago, Ill.

HIGH SPEED
•
PRECISION



The same precision for which other Dumore Tools have become famous goes into this high speed, precision drill. Accurate, simple to operate, this tool shoots holes from .0135" to ⅛". Has a rack and pinion feed as well as depth gauge. A No. 0 Jacobs specially balanced chuck is used—fine drills can be used without danger of breakage. Complete, $40.00.

THE DUMORE CO., Dept. 165-X RACINE, WIS.

DUMORE
Precision DRILLS

JARVIS
FLEXIBLE SHAFTS and MACHINES

JARVIS BIAX

For Grinding, Polishing, Rotary filing, etc.

For Screw Driving and Remote Control

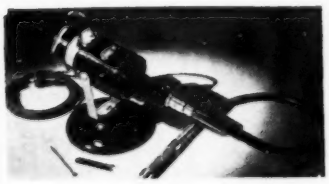
All Jarvis-Biax products are manufactured by

CHAS. JARVIS CO.
GILDERSLEEVE, CONN.

Machines, Flexible Shaft

Dallett Co., Philadelphia, Pa. (Electric)
Dumore Co., The, Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.

1,700 to 12,000 R. P. M.
with a twist of the wrist



The new Dumore K-G "Vari-Speed" Flexible Shaft Tool has a unique variable speed control—an adjustable electric governor, not a power-stealing rheostat. The ¼ h.p. continuous duty motor (A.C. current only) runs as high as 12,000 r.p.m. for grinding—or throttles down as low as 1,700 r.p.m. for cutting iron, steel and harder alloys. With base, $112.50.

THE DUMORE CO., Dept. 165-X RACINE, WIS.

DUMORE
Electrical TOOLS

1905 Strand 1936

FLEXIBLE SHAFTS and MACHINES of the Highest Quality

HIGH GRADE CONCERNS Want HIGH GRADE MACHINES Sell them the STRAND Make Them Like You and Your Company

Salesmen who sell high grade equipment are always welcome in the purchasing agent's office and respected by the superintendent.

You can make the grade by selling the STRAND

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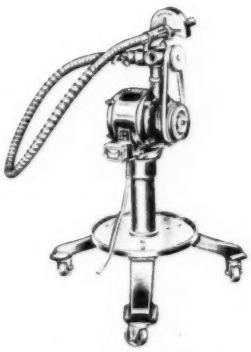
5001 No. Lincoln St. Chicago

HASKINS TYPE H-6



FLEXIBLE SHAFT EQUIPMENT

Write for catalog showing complete line ranging from ¼ to 1½ H. P.

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Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Illinois.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Floor Surfacing, Scrubbing and Polishing

Mall Tool Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Gear Testing

Brown & Sharpe Mfg. Co., Providence.
Farrel-Birmingham Co., Inc., Ansonia, Conn.

Machines, Grinding

(See "Grinders")

Machines, Grooving

American Steel Scraper Co., The, Sidney, Ohio.
Boice, W. B. & J. E., Toledo, Ohio.
Mall Tool Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Hack Saw

(See "Saws, Hack [Machine]")

Machines, Honing

Barnes Drill Co., Rockford, Ill. (Hydraulic)
Moline Tool Co., Moline, Ill.

Machines, Key Seating and Grooving

Baker Bros., Inc., Toledo, Ohio.
Borden Co., The, Warren, Ohio.
Burr, John T., & Son, Brooklyn, N. Y.
Chattanooga Machinery Co., Chattanooga, Tenn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Mitts and Merrill, Saginaw, Mich.

Machines, Lapping

Barnes Drill Co., Rockford, Ill.
Hunter, James, Machine Co., North Adams, Mass.
Ingersoll Milling Machine Co., Rockford, Ill.
Moline Tool Co., Moline, Ill.
Norton Co., Worcester, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.

Machines, Leather Working

Curtin-Hebert Co., Inc., Gloversville, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.

Machines, Measuring, Lineal

Devlin, Thos., Mfg. Co., Philadelphia, Pa.
Durant Mfg. Co., Milwaukee, Wis.
Torrington Mfg. Co., The, Torrington, Conn.
Veeder-Root, Inc., Hartford, Conn.

Machines, Metal Slitting

Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Gundlach, T. J., Machine Co., Belleville, Ill.
National Machine Products Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, St. Marys, Ohio.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torrington Mfg. Co., The, Torrington, Conn.

Machines, Milling

Ames, B. C., Co., Waltham, Mass.
Burke Machine Tool Co., The, Conneaut, O.
Brown & Sharpe Mfg. Co., Providence, R. I.
Burr, John T., & Son, Brooklyn, N. Y. (Keyseat)
Gooley & Edlunds, Inc., Cortland, N. Y.

FLEXIBLE SHAFT MACHINES and ATTACHMENTS

THE U. S. Line includes every type of machine and attachments for flexible shaft uses.

Our Flexible Shaft Machines are made with overhead, bench or floor mounting, and include V-belt drive types. All motors are Ball Bearing, with a horsepower range from ⅛ H. P. to 2 H. P.

Furnish all your customers' flexible shaft needs from the U. S. Line. You will like our distributor service.

The UNITED STATES ELECTRICAL TOOL CO.
2479 West Sixth St., Dept. H. Cincinnati, Ohio.
In Canada—*Maple Leaf Electric Tools, Ltd., Toronto*

GOOD ELECTRIC TOOLS SINCE 1897

DRIVER Flexible Shafts Leader No. 2*

PR101 Heavy Duty $41.00 less motor

**Advance sales lead us to believe that this is one of the many Driver Power Tools which will lead the power tool field for the coming year. See other advertisements this issue. (Pages 146 and 183.)*

Features

SKF ball bearings. Motor swivels and locks in any position.

Motor and shaft may be raised 15 inches with extension stand.

Here is a real portable power tool that performs an innumerable number of different jobs. Sanding, grinding, drilling in difficult places, roughing tires, cleaning and buffing welded surfaces. This is just one of the many different types of flexible shafts manufactured by Driver and built to their standards of high quality.

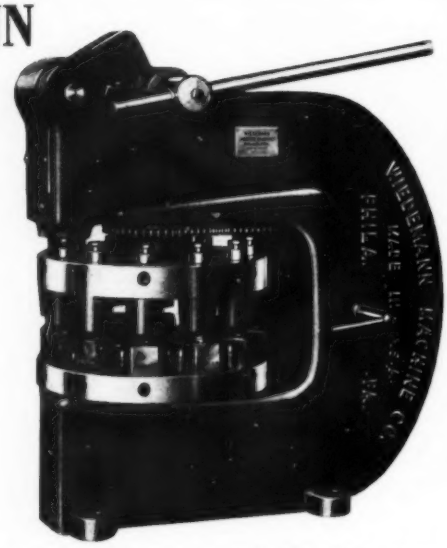
For complete catalog write Dept. MS2.

Walker-Turner Co., Inc. Plainfield, New Jersey

WIEDEMANN turret punch

for

24-in. wide sheets—with 12 sizes of punches always instantly available



The Wiedemann Turret Punch—Type R-2—has twelve punches and dies up to 1-in. dia., mounted in a revolving turret. An accurate, positive indexing device locks the revolving turret when punch and die are centered under the ram.

Punches and dies are simple and inexpensive. Tools for square, hexagon, slotted, or other holes can be furnished. Special punches are available for very accurate holes in Copper, Aluminum, and Duralumin, which could not be punched heretofore. This tool is punching Copper Bus Bars with complete satisfaction. Also available in 18"-24"-28" throats.

Wiedemann Machine Company

Hand or Power Operated

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Ingersoll Milling Machine Co., The, Rockford, Ill.
Knight, W. B., Machinery Co., St. Louis.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass. (Vertical only)
Ryerson, Joseph T., & Son, Inc., Chicago.
Sundstrand Machine Tool Co., Rockford, Ill.
Van Norman Machine Tool Co., Springfield, Mass.

Machines, Mitering

Beach Mfg. Co., Montrose, Pa.
Bell Machine Co., The, Oshkosh, Wis.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Mortising

Barnes, W. F. & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Orum, S. R. M., Inc., Philadelphia, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa. (Lock)

Machines, Nibbling

American Chain Co., Inc., Bridgeport, Conn.
Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Mitts and Merrill, Saginaw, Mich.
National Machine Tool Co., Racine, Wis.

Machines, Nut Setting

(See "Setters, Nut")

Machines and Equipment, Painting and Whitewashing

Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Clements Mfg. Co., Chicago, Ill.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
Gast Mfg. Co., The, Bridgman, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Littleford Bros., Cincinnati, Ohio.
Metal Specialties Mfg. Co., Chicago, Illinois
Paasche Airbrush Co., Chicago, Ill.
Scalfe, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.

Machines, Planing

(See "Planers")

Machines, Polishing and Buffing

(See "Machines, Buffing and Polishing, Stationary")

Machines, Pumping

(See "Pumps")

Machines, Punching and Shearing

Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Ferracute Machine Co., Bridgeton, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Chicago ,Ill.
Torrington Mfg. Co., The, Torrington, Conn.
Watson-Stillman Co., The, Roselle, N. J.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.

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Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simmons Machine Tool Corp., Albany, N.Y.

Machines, Reaming

Barnes, W. F. & John, Co., Rockford, Ill.
Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Rockford Drilling Machine Co., Rockford.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Van Dorn Electric Tool Co., Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Wappat, Inc., Pittsburgh, Pa.

Machines, Riveting

(See "Riveters")

Machines, Rubbing, Flexible Shaft

Dallett Co., The, Philadelphia, Pa.
Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Schauer Machine Co., The, Cincinnati, O.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Sanding and Polishing

American Foundry Equipment Co., Mishawaka, Ind.
Asch & Co., Inc., New York, N. Y.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice, W. B. & J. E., Toledo, Ohio.
Buckeye Portable Tool Co., The, Dayton, Ohio.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Curtis Machine Corp., Jamestown, N. Y.
Dallett Co., The, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Empire Machine Works, Mt. Morris, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hermance Machine Co., Williamsport, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Hudson-Sharp Machine Co., Green Bay, Wis.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Mattison Machine Works, Rockford, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.

Ober Mfg. Co., The, Chagrin Falls, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Simplex Spray Equipment Co., Chicago, Ill.
Skilsaw, Inc., Chicago, Ill.
Sterling Products Co., Detroit, Mich.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines—Saw Filing, Setting and Jointing

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis, Minn.
Holcomb, A. L., Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Sawing, Radial

Beach Mfg. Co., Montrose, Pa.
Skilsaw, Inc., Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Machines, Screw, Hand

Brown & Sharpe Mfg. Co., Providence, R. I.

Machines, Screw Slotting

Independent Pneumatic Tool Co., Chicago.

Machines, Screwdriving

Black & Decker Mfg. Co., The, Towson, Md.
Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York.

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Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Stanley Electrical Tool Division, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Maufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Swartz & White Mfg. Co., The, Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines and Tools, Sheet Metal Working

(See various headings for specific items.)

Armstrong-Blum Mfg. Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Canton Foundry & Machine Co., The, Canton, Ohio.
Dallett Co., The, Philadelphia, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mall Tool Co., Chicago, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.
National Machine Tool Co., Racine, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., Torrington, Conn.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

Machines, Smoke Testing

Bernz, Otto, Co., Inc., Rochester, N. Y.

Machines, Spraying

(See "Sprayers" and "Guns, Paint Spraying")

Machines, Tapping

Armstrong-Blum Mfg. Co., Chicago, Ill.
Baker Brothers, Inc., Toledo, Ohio.
Barnes, W. F. & John, Co., Rockford, Ill.
Burke Machine Tool Co., The, Conneaut, O.
Ettco Tool Co., Brooklyn, N. Y.
Geometric Tool Co., The, New Haven, Conn.
Greenlee Bros. & Co., Rockford, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Mueller Co., Decatur, Ill.
Procunier Safety Chuck Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Tapping, Electric, Portable

Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., Cincinnati.
Ettco Tool Co., Brooklyn, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines and Steamers, Thawing, Pipe

Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Machines, Threading, Bolt and Cap Screw

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Oster-Williams, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.

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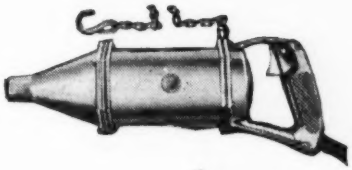

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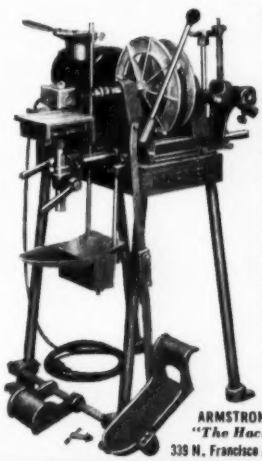

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Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Threading, Pipe

(See "Machines, Cutting and Threading, Pipe")

Machines, Threading, Rod

Beaver Pipe Tools, Inc., Warren, Ohio.
Geometric Tool Co., New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
National Acme Co., Cleveland, Ohio.
Oster-Williams, Cleveland, Ohio.

Machines, Woodworking

(See also headings for specific items)

Barnes, W. F. & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Blount, J. G., Co., Everett, Mass. (Lathes)
Boice, W. B. & J. E., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Dallett Co., The, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Empire Machine Works, Mt. Morris, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Leach Co., Oshkosh, Wis.
Master Woodworker Mfg. Co., Detroit, Mich.
Mattison Machine Works, Rockford, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Onan, D. W., & Sons, Minneapolis, Minn.
Orum, S. R. M., Inc., Philadelphia, Pa.
Perkins & Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Shawver Co., The, Springfield, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Tessmer Machine & Tool Co., Detroit.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machinists' Tools

(See "Tools, Fine, Machinists'")

Mallets, Fibre

Chicago Rawhide Mfg. Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark.
Kaalot Mfg. Co., The, Chicago, Ill.
Oliver, W. W., Mfg. Co., The, Buffalo, N.Y.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Mallets, Rawhide and Leather

(See "Hammers, Mallets and Mauls—Rawhide and Leather")

Mallets, Rubber and Composition Head

Bartlett Manufacturing Co., Detroit, Mich.
Bonney Forge & Tool Works, Allentown, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Division, The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miller Rubber Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.
Republic Rubber Co., The, Youngstown.
Rhopac Products Corp., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Warren Handle Works Co., Cortland, Ohio.

Mallets, Wood

(See also "Sledges, Mauls or Striking Hammers")

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich.
Hy-Tools, Inc., Buffalo, N. Y.
Lignum-Vitae Products Corp., Jersey City.
Niagara Machine & Towel Works, Buffalo.
Peterson, F. W., Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Boston, Mass.
Warren Handle Works Co., Cortland, Ohio.

Mandrels, Blacksmiths' and Tinners'

American Foundry & Mfg. Co., St. Louis, Mo.
Noyes, B. B., Co., Greenfield, Mass.

Mandrels, Lathe, Expanding

Brown & Sharpe Mfg. Co., Providence, R.I.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Union Twist Drill Co., Athol, Mass.

Mandrels, Lathe, Non-Expanding

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Mandrels, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Multnomah Iron Works, Portland, Ore.
Northfield Foundry & Machine Co., Northfield, Minn.
Stanley Electric Tool Division, New Britain, Conn. (For hole saws)

Mandrels, Saw, Direct Connected Motor

Jones Superior Machine Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Wallace, J. D., & Co., Chicago, Ill.

Manholes, Boiler and Tank

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

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(See "Headers and Manifolds, Pipe")

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Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.

Masks, Face Protecting

Chicago Eye Shield Co., Chicago, Ill.
Gross Rubber Co., Sharon, Pa.
Hygeia Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Weldit Acetylene Co., Detroit, Mich.
Willson Products, Inc., Reading, Pa.

Masks, Gas

Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Hygeia Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, Ohio.
Weldit Acetylene Co., Detroit, Mich.

Masks, Welders'

(See "Shields, Face, Welders'")

Masonry Drive Devices

(See "Bolts, Expansion")

Materials, Filtering

(See "Filtering Materials")

Mats, Fibre

American Manufacturing Co., Brooklyn.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Union Fibre Sales Co., Winona, Minn.

Mats, Leather

Bond, Charles, Co., Philadelphia, Pa.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Page Belting Co., Concord, N. H.
Schieren, Chas. A., Co., New York, N. Y.

Mats and Matting, Rubber

Atlantic Manufacturing Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cactus Mat & Patch Mfg. Co., Los Angeles.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Home Rubber Co., Trenton, N. J.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Murray Rubber Co., Trenton, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Mattocks

(See "Picks, Mattocks and Grub Hoes")

Mauls

(See "Sledges, Mauls or Striking Hammers," and "Hammers, Mallets and Mauls —Rawhide and Leather")

Measures, Oil

(See "Funnels and Measures")

Menders, Hose

Dixon Valve & Coupling Co., Philadelphia.
Home Rubber Co., Trenton, N. J.
Kelly Machinery Co., Chicago, Ill.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

Metal, Babbitt

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Buckeye Brass & Mfg. Co., The, Cleveland.
Buffalo Foundry & Machine Co., Buffalo.
Bunting Brass & Bronze Co., Toledo, Ohio.
Canfield, M. C., Sons Co., Newark, N. J.
Dayton Bronze Bearing Co., The, Dayton.
Eagle-Picher Lead Co., The, Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Federated Metal Corp., New York, N. Y.
Felt Products Mfg. Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Finn, John, Metal Works, San Francisco.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Glacier Metal Co., Richmond, Va.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Johnson Bronze Co., New Castle, Pa.
Magnolia Metal Co., Elizabeth, N. J.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Monarch Metal Co., Chicago, Ill.
Murphy, E. L., Chicago, Ill.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
National Smelting & Refining Co., Chicago.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
Rogers Metal Works, Kansas City, Mo.
Rowell Mfg. Co., Appleton, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
United American Metals Corp., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wing, J. T., & Co., Detroit, Mich.

Metal, Bearing, Bronze

(See "Bars, Bronze, Cored and Solid")

Metal, Perforated Sheet

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Beckley Perforating Co., Garwood, N. J.
Buffalo Wire Works, Inc., Buffalo, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Harrington & King Perforating Co., The, Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Newman Bros., Inc., Norwood, Cincinnati.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Spencer Steel Co., New York.

Metal Working Machinery and Tools, Sheet

(See "Machines and Tools, Sheet Metal Working")

Metallizing Equipment

Metallizing Co. of America, Inc., Los Angeles, Cal.

Meters, Air

Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
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Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.

Meters, Condensation

Brown Instrument Co., The, Philadelphia.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Worthington-Gamon Meter Co., Harrison, N. J.

Meters, Flow, Water and Steam

Brown Instrument Co., The, Philadelphia.
Buffalo Meter Co., Buffalo, N. Y.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.

Meters, Frequency

General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.

Meters, Gasoline and Oil

Bowser, S. F., and Co., Fort Wayne, Ind.
Brown Instrument Co., The, Philadelphia.
Buffalo Meter Co., Buffalo, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Foxboro Co., The, Foxboro, Mass.
Hersey Manufacturing Co., Boston, Mass.
Mars Co., The, Aurora, Ill.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Veeder-Root, Inc., Hartford, Conn.
Worthington-Gamon Meter Co., Harrison, N. J.

Meters, Lumber

Durant Mfg. Co., Milwaukee, Wis.
Veeder-Root, Inc., Hartford, Conn.

Meters, Recording

(See "Recorders")

Meters, Water

Brown Instrument Co., The, Philadelphia.
Buffalo Meter Co., Buffalo, N. Y.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Hersey Manufacturing Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Republic Flow Meters Co., Chicago, Ill.
Worthington-Gamon Meter Co., Harrison, N. J.

Micrometers

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bath, John, & Co., Inc., Worcester, Mass. (Inside)
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Slocomb, J. J., Co., Providence, R. I.

Millboard, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Millers, Key Seating

(See "Machines, Key Seating and Grooving")

UMI

Milling Attachments

Brown & Sharpe Mfg. Co., Providence, R. I.
Craley, C. C., Mfg. Co., Shillington, Pa.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Reed-Prentice Corp., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford.
Van Norman Machine Tool Co., Springfield, Mass.

Milling Machines

(See "Machines, Milling")

Milling Machines, Die

(See "Machines, Die Filing and Milling")

Milling Machines, Thread

(See "Machines, Thread Milling")

Mills, Boring and Turning

(See "Machines, Boring and Turning")

Mills, End

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Glenzer, J. C., Co., The, Detroit, Mich. (Utility shank)
Latrobe Tool Co., Latrobe, Pa.
Lovejoy Tool Co., Inc., Springfield, Vt.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass. (Including double and slotting)
Whitman and Barnes, Inc., Detroit, Mich.

Mills, Hollow

Alvord-Polk Tool Co., Millersburg, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., Detroit, Mich.
Geometric Tool Co., New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Maurey Mfg. Corp., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Mills, Tumbling

(See "Barrels and Mills, Tumbling")

Mineral Wool

(See "Wool, Mineral")

Mitering Machines

(See "Machines, Mitering")

Mittens

(See "Gloves and Mittens")

Mixers, Steam and Water

Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Powers Regulator Co., The, Chicago, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky. (Air, water and chemical)

Mops, Cotton

Littleford Bros., Cincinnati, Ohio.
Massasoit Mfg. Co., Fall River, Mass.
Rauschenberger, John, Co., Milwaukee.
Southwestern Broom Mfg. Co., The, Evansville, Ind.
Sullivan Brush Co., Terre Haute, Ind.

Mortisers, Electric, Portable

Boice, W. B. & J. E., Toledo, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Mortising Machines

(See "Machines, Mortising")

Motor Maintenance Equipment

Ideal Commutator Dresser Co., Sycamore, Ill.

Motors, Air Compressor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Binks Manufacturing Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Dumore Co., The, Racine, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Lincoln Electric Co., The, Cleveland, Ohio.
Paasche Airbrush Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.
Wagner Electric Corp., St. Louis, Mo.

Motors and Generators, Electric

Allis, Louis, Co., The, Milwaukee, Wis.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baldor Electric Co., St. Louis, Mo.
Century Electric Co., St. Louis, Mo.
Clark, James, Jr., Electric Co., Louisville, Ky.
Diehl Mfg. Co., Elizabethport, N. J.
Dumore Co., The, Racine, Wis. (Motors only)
Electric Products Co., Cleveland, Ohio.
Emerson Electric Mfg. Co., The, St. Louis.
Fairbanks, Morse & Co., Chicago, Ill.
Forbes & Myers, Worcester, Mass.
General Electric Co., Schenectady, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Kimble Electric Co., Chicago, Ill. (Motors for printers)
Kingston-Conley Electric Co., Jersey City, N. J.
Lincoln Electric Co., The, Cleveland, Ohio.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Milwaukee Electric Tool Corp., Milwaukee.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Signal Electric Mfg. Co., Menominee, Mich.
Sturtevant, B. F., Co., Hyde Park, Boston.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Troy Engine & Machine Co., Troy, Pa.
U. S. Electrical Motors, Inc., Los Angeles, Calif. (Motors only)
Wagner Electric Corp., St. Louis, Mo. (Motors only)

Motors, Stationary—Gas, Gasoline, Kerosene and Oil

(See "Engines or Motors, Stationary")

Motors, Water

Central Automatic Sprinkler Co., Philadelphia, Pa.
Fitz Water Wheel Co., Hanover, Pa.

Mounts, Vise

Ridge Tool Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Movers, Car

(See "Car Movers")

Mowers, Lawn

Mast, Foos & Co., Springfield, Ohio.
Milbradt Mfg. Co., St. Louis, Mo. (Power)
Red Cross Mfg. Co., The, Bluffton, Ind.

Mufflers, Exhaust, Steam

Burgess Battery Co., Freeport, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Wright-Austin Co., Detroit, Mich.

Nail Sets

(See "Sets, Nail")

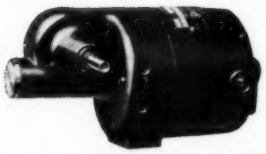
Nails, Brass and Copper

Atlas Tack Corporation, Fairhaven, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Hubbard & Co., Pittsburgh, Pa. (Copper only)
Mattatuck Mfg. Co., The, Waterbury, Conn. (Brass only)
Reading Iron Co., Philadelphia, Pa.
Tower Mfg. Co., Madison, Ind. (Small)
Wickwire Spencer Steel Co., New York.

Nails, Cement Coated

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Northwestern Barb Wire Co., Sterling, Ill.
Republic Steel Corp., Cleveland, Ohio.

4 R.P.M. AND UP



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Nails, Cut

Atlas Tack Corp., Fairhaven, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Jones & Laughlin Steel Corp., Pittsburgh.
Reading Iron Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.

Nails, Dating and Marking, Railroad Tie

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling. W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Double Head

American Steel & Wire Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Star Expansion Bolt Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Foundry

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails—Iron, Steel and Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel and wire only)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Markwell Manufacturing Co., Inc., New York, N. Y.
Northwestern Barb Wire Co., Sterling, Ill.
Pittsburgh Steel Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Masonry, Hardened

Parker-Kalon Corp., New York, N. Y.

Nails, Roofing

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Eagle-Picher Lead Co., The, Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ruberoid Co., The, New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Screw

Parker-Kalon Corp., New York, N. Y.

Needles, Belt Lacing

Berbecker, Julius, & Sons, Inc., New York.

Needles, Industrial, Hand Sewing

Berbecker, Julius, & Sons, Inc., New York.

Netting, Wire

American Steel & Wire Co., Chicago, Ill.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Northwestern Barb Wire Co., Sterling, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Nibbling Machines

(See "Machines, Nibbling")

Nippers

Hammel, Riglander & Co., Inc., New York.
Heller Brothers Co., Newark, N. J.
Lyman, Benj. K., & Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Schollhorn, Wm., Co., The, New Haven, Conn.

Nipples, Hose

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allen & Billmyre Co., Inc., New York.
American Foundry & Mfg. Co., St. Louis.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of the B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Kelly Machinery Co., Chicago, Ill.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Mueller Co., Decatur, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Nipples, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Essex Brass Corp., Detroit, Mich.
Frick-Reid Supply Corp., N. S., Pittsburgh. Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hunt, H. W., Co., Reading, Mass. (Brass and copper)
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.
Williams, Franklin, Inc., Orange, N. J.

Nipples, Pipe, Extra Heavy

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

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Byers, A. M., Co., Pittsburgh. (Wrought iron only)
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Frick-Reid Supply Corp., N. S., Pittsburgh. Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Miller Machine Works, Springs, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Steel only)
Reading Iron Co., Philadelphia. (Wrought iron only)
Shaw-Kendall Engineering Co., The Toledo, Ohio.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.
Wiedeman, Frank, Co., Milwaukee, Wis.

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Rickersburg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Nipples, Swaged

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Dresser, S. R., Mfg. Co., Bradford, Pa.
Moak Machine & Tool Co., Port Huron, Mich.

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Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
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Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nozzles, Air

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Cleveland Rock Drill Co., The, Cleveland.
Essex Brass Corp., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
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Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
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Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Knox Mfg. Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
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Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Messmer Brass Co., St. Louis, Mo.
Morrison Bros., Dubuque, Iowa.
Mulconroy Co., Inc., Philadelphia, Pa.
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Republic Rubber Co., The, Youngstown, O.
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Sherman, H. B., Mfg. Co., Battle Creek.
Thermoid Rubber Co., Trenton, N. J.
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Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Morrison Bros., Dubuque, Iowa.
New York Brass Foundry Co., New York.
Republic Rubber Co., The, Youngstown, O.
Safety Fire Extinguisher Co., The, New York, N. Y.

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American Foundry & Mfg. Co., St. Louis.
Clow, James B., Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Haydenville Co., The, Haydenville, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
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M & H Valve & Fittings Co., Anniston, Ala.
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Ives, W. A., Mfg. Co., Meriden, Conn.
Taylor Forge & Pipe Works, Chicago, Ill.

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Buffalo Forge Co., Buffalo, N. Y.
Consolidated Brass Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Spray Engineering Co., Somerville, Mass.

Nozzles, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, O.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Nozzles, Sand Blast

American Foundry Equipment Co., Mishawaka, Ind.
Dallett Co., The, Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Marion Malleable Iron Works, Marion, Ind.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Ruemelin Mfg. Co., Milwaukee, Wis.

Nozzles, Spray

Aeroil Burner Co., Inc., West New York, N. J.
Allen, W. D., Mfg. Co., Chicago, Ill.
Anderson Bros. Mfg. Co., Rockford, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Chain Belt Co., Milwaukee, Wis.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
H. D. B. Corporation, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
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Metal Specialties Mfg. Co., Chicago, Ill.
Miller Mfg. Co., Cedar Falls, Iowa. (Including oil spray)
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Roberts Brass Mfg. Co., The, Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Nozzles, Turret

Elkhart Brass Mfg. Co., Elkhart, Ind.

Nut and Screw Blanks

(See "Blanks, Nut and Screw")

Nut Setters

(See "Setters, Nut")

Nuts, Acorn

Chicago Screw Co., The, Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Rockford Screw Products Co., Rockford, Ill.
United Screw & Bolt Corp., Cleveland, O.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
American Screw Co., Providence, R. I.
Ampco Metal, Inc., Milwaukee, Wis.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Millidale, Conn.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Harper, H. M., Co., Chicago, Ill.
Harris, Arthur, & Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
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Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Torrington Mfg. Co., Torrington, Conn.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Cap

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Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

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Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
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Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
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Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Castellated or Slotted

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Buffalo Bolt Co., North Tonawanda, N. Y.
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Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
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Lamson & Sessions Co., The, Cleveland.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
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Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Stevens, Walden, Inc,, Worcester, Mass.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Check or Jam

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Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

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Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
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Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
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Republic Steel Corp., Cleveland, Ohio.
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Rockford Screw Products Co., Rockford, Ill.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

Nuts, Hot Pressed

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Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Federal Screw Works, Detroit, Mich.
Heiz & Heiz, Inc., Brooklyn, N. Y.
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
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Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Lock

(See "Locknuts")

Nuts, Thumb and Wing

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Billings & Spencer Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., The, Columbus, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Maryland Bolt & Nut Co., The, Baltimore, Md.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
United Screw & Bolt Corp., Cleveland, O.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Nuts, Waste

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Detroit Brass & Malleable Works, Detroit, Mich.
National Screw & Mfg. Co., The, Cleveland.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
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Stanley Electric Tool Division, New Britain, Conn.
Stuart, D. A., Oil Co., Chicago, Ill.
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Franklin Oil & Gas Co., The, Bedford, O.
Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
Master Lubricants Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.
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Manhattan Rubber Mfg. Division, The, of Raybestos-Manhattan, Inc., Passaic, N. J.
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Pioneer Rubber Mills, San Francisco.
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(See "Stones, Oil")

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(See "Instruments, Testing, Oil")

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(See "Sets, Oiler")

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Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
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Nugent, Wm. W., & Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

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2206	⅓	3–⅜	6	4	5.50
2209	⅓	3–⅜	9	4–½	6.00
3304	½	3–¾	4	4–¾	6.00
3306	½	3–¾	6	5	6.50
3309	½	3–¾	9	5–½	7.00
5504	1	4–⅛	4	6	8.00
5506	1	4–⅛	6	6–¼	8.50
5509	1	4–⅛	9	6–¾	9.00
5512	1	4–⅛	12	7	9.00

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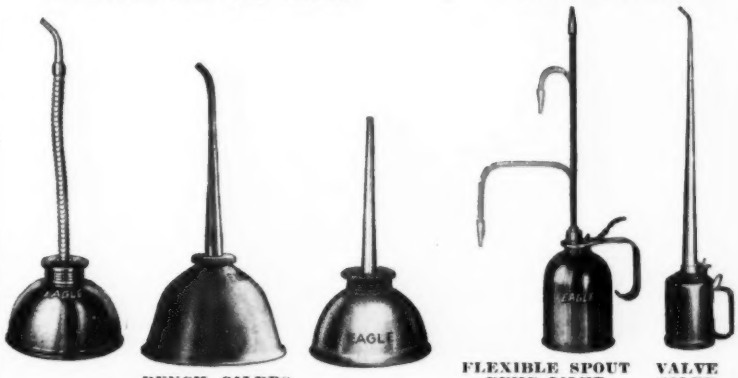

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Eagle Manufacturing Co., Wellsburg, W. Va.
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Victor Lubricator Co., Chicago, Ill.
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Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator Mfg. Co., Detroit, Mich.
Manzel Brothers Co., Buffalo, N. Y.
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Johns-Manville, New York, N. Y.
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Lubron Co., The, Everett, Mass.
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Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
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Openers, Door

(See "Door Openers and Closers")

Ovens, Core, Enameling and Japanning

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Diamond Iron Works, Inc., Minneapolis.
Palmer-Bee Co., Detroit, Mich.
Roberts Portable Oven Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Ovens, Electric, for Industrial Uses

Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.

Overhead Track Systems

(See "Trolleys, Tracks and Tramways, Overhead")

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Holcomb Safety Garment Co., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Oxygen, for Industrial Uses

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Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.

Packers, Oil Well

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
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Quaker City Rubber Co., Philadelphia, Pa.
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Rhopac Products Corp., Chicago, Ill.
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Belmont Packing & Rubber Co., Philadelphia, Pa.
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Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
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Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
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Republic Rubber Co., The, Youngstown, O.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
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United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
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Field, R. B., & Co., Worcester, Mass.
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Watt's, John M., Sons, Philadelphia, Pa.

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Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
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Webb, J. A., Belting Co., Inc., Buffalo, N.Y.
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Packing, Hemp

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Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

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Excel Asbestos Mfg. Co., Garwood, N. J.
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Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
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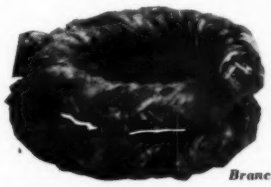

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Webb, J. A., Belting Co., Inc., Buffalo.
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Packing, Jute

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Klingerit, Inc., New York, N. Y.
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Lubron Co., The, Everett, Mass.
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Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
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Webb, J. A., Belting Co., Inc., Buffalo.
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PAX-TITE
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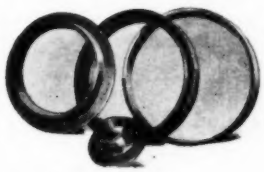

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Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Dudgeon, Richard, Inc., New York, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. (Air brake and flange)
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Graton & Knight Co., Worcester, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mabbs Hydraulic Packing Co., Chicago, Ill.
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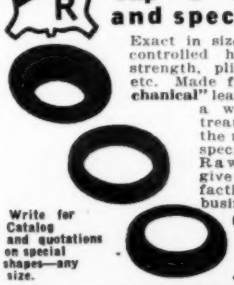

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Whiting Leather & Belting Co., Long Island City, N. Y.

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France Packing Co., The, Tacony, Philadelphia, Pa.
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Watt's, John M., Sons, Philadelphia, Pa.
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Packing, Rubber

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
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Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
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Darcoid Co., Inc., The, New York, N. Y.
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Packing, Sheet

(See Classifications by Material)

Packing, Semi-Metallic

(See "Packing, Metallic")

Packing, Superheat

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Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Valve Stem

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Crane Packing Co., Chicago, Ill.
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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
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Federal Metallic Packing Co., Wakefield, Mass.
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Garlock Packing Co., The, Palmyra, N. Y.
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Gould Packing Co., East Cambridge, Mass.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
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Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
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Klingerit, Inc., New York, N. Y.
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Schieren, Chas. A., Co., New York, N. Y.
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United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
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Packing, Wedge and Wick

(See Classifications by Material)

DARCOID
SHEET PACKINGS AND GASKETS
FOR ANY SERVICE
Darcoid No. 103—Superheat.
Flangetite—Hot Oil.
Edge No. 500—General Service.
Kidskin—Oil and Water.
Folded Asbestos Gaskets
THE DARCOID CO., INC.
200 Varick St. New York City

"The Best in Service and Quality"
EHRET'S VALLEY FORGE PACKINGS
VALVE STEM PACKINGS
A-25 Braided Square A-18 Braided Round
A-26 Twisted
Made of high grade Asbestos
EHRET MAGNESIA MANUFACTURING CO.
VALLEY FORGE, PA.
Branches: New York - Chicago - Philadelphia

Padlocks

Eagle Lock Co., Terryville, Conn.
Fraim, E. T., Lock Co., Lancaster, Pa.
Master Lock Co., Milwaukee, Wis.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Pads, Lubricating, Felt

Booth Felt Co., Inc., Brooklyn, N. Y.
Breeze Corporation, Inc., Newark, N. J.
Gross Rubber Co., Sharon, Pa.

Pails, Cement

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Philadelphia Belting Co., Philadelphia.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

ENDURA SHEET PACKING
A chemically treated Fibre
for
Oil, Gasoline and Water Connections. Tough — Compressible — Durable. Less expensive and more satisfactory than rubber or leather.
Write direct to the factory.
Endura Mfg. Corporation
QUAKERTOWN, PA.

UMI

On Wood, Brick, Steel, Concrete or Galvanized Iron—PERMITE'S ALUMINUM FINISH Actually COSTS LESS *"BY THE FOOT"*

There are two big reasons why distributors make money and win customers with Permite Ready-Mixed Aluminum Paint.

1. ***High Quality Gives Real Protection***

Permite's exclusive synthetic vehicle and its vacuum-exploded pigment afford a finish that resists weather and corrosion long after ordinary paints would fail. Permite is ready-mixed; does not discolor; will not skin over in the can; is easy to apply. Its finish is so smooth that soot and dust do not cling.

2. ***Permite Is Economical***

Permite spreads 50% farther than standard paints. One coat covers, and its lasting brilliance saves the cost of frequent repaintings. Permite costs less "by the foot".

For General Use Or Heat Resisting

Permite is made in two types: Non-Corrosive or Heat Resisting to 1000° F. Both flow smoothly from brush or spray gun, without clogging or brush marks. In all sizes from quarts to 50 gal. drums. Full support and protection given to Permite distributors. Write now for details.

ALUMINUM INDUSTRIES INC., *Cincinnati, O.*

PERMITE *Aluminum* PAINT

COSTS LESS "BY THE FOOT"

Pails, Fibre

Continental-Diamond Fibre Co., Newark, Del.
Cordley & Hayes, New York, N. Y.
Geuder, Paeschke & Frey Co., Milwaukee.

Pails, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Tar, Roofers'

Aeroil Burner Co., Inc., West New York, N. J.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.

Pails, Washing, Steel

Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Water

Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Wood

Leard, William, Co., Inc., The, New Brighton, Pa.

Paint, Aluminum

Aluminum Company of America, Pittsburgh, Pa.
Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division)
Koppers Products Co., Pittsburgh.
Lucas, John, & Co., Inc., Philadelphia, Pa.
Pittsburgh Plate Glass Co., (Paint and Varnish Division), Milwaukee, Wis.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., The, Cleveland, O.
Vita-Var Corp., Newark, N. J.
Vortex Manufacturing Co., The, Cleveland.
Wilbur & Williams Co., The, Boston, Mass.

Paint, Casein

Craftex Co., New York, N. Y.
General Chemical Co., Chicago, Ill.
Muralio Corp., Staten Island, N. Y.
Wilbur & Williams Co., The, Boston, Mass.

Paint, Graphite and Roofing

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carey, Philip, Co., The, Lockland, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division).
Glidden Co., The, Cleveland, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Menaugh & Co., Chicago, Ill.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co., (Paint and Varnish Division), Milwaukee, Wis.
Rinald. H., Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Superior Flake Graphite Co., Chicago, Ill.
Tnemec Inc., Kansas City, Mo.
United States Graphite Co., The, Saginaw, Mich.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

DIXON'S PAINTS

INDUSTRIAL PAINTS

Silica-flake-graphite paints famous for great durability and waterproofness. Used for maintenance of plant and equipment, bridges, gas holders, water tanks, wood and metal surfaces. Made in 14 colors.

ALUMINUM PAINTS

Their durable spar varnish vehicle resists the elements, insures long life and brilliance of the pigment. Made in three shades—Bright, a straight aluminum pigment—and two shades of Medium and Dark with a pigment of aluminum and flake graphite.

MACHINERY ENAMELS

Made for rough "heavy duty" service. Produce a solid covering, one coat enamel of great toughness and smoothness. Made in ten colors.

HI-HEAT RESISTING PAINTS

Made in four service colors. Preservation of surface is the primary purpose.

MAINTENANCE FLOOR PAINTS

For concrete, wood and composition surfaces. Water and alkali proof. Made in eight colors.

DIXSPAR VARNISHES

A complete range of varnishes for maintenance in plants, office buildings, institutions, etc.

Paint Sales Division

JOSEPH DIXON CRUCIBLE CO.

Established 1827 — Jersey City, N. J.

DIXON'S INDUSTRIAL SILICA GRAPHITE PAINT

Paint, Hot Surface

Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ensign Products Co., Cleveland, Ohio.
General Electric Co., (Merchandise Dept.) Bridgeport, Conn.
Green, A. P., Fire Brick Co., Mexico, Mo.
Horn, A. C., Co., Long Island City, N. Y.
Liquilox Co., Ltd., Los Angeles, Calif.
Menaugh & Co., Chicago, Ill.
National Copper Paint Corp., Chicago, Ill.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vita-Var Corp., Newark, N. J.
Wills Products Co., The, New York, N. Y.

Paint for Iron Work, Boilers, Boiler Settings, Machinery, Etc.

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Baker Paint & Varnish Co., Jersey City, N. J.
Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carter Paint Company, Liberty, Indiana.
Chadwick & Trefethen, Portsmouth, N. H.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, E. I., & Co., Wilmington, Del. (Finishes Division)
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Glover, Manson, Stoughton, Mass.
Horn, A. C., Co., Long Island City, N. Y.
Koppers Products Co., Pittsburgh.
Liquilox Co., Ltd., Los Angeles, Calif.
Menaugh & Co., Chicago, Ill.
National Lead Co., New York, N. Y.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co. (Paint and Varnish Division), Milwaukee, Wis.
Quigley Co., Inc., New York, N. Y.
Rinald, H. Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Steelcote Mfg. Co., St. Louis, Mo.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
United States Graphite Co., The, Saginaw, Mich.
U. S. Gutta Percha Paint Co., Providence, R. I.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston.
Wills Products Co., The, New York, N. Y.

TOTALUME RUST ALUMINUM *and* TOTRUST

Rust Inhibiting Paints, Aluminum, Clear, Gloss Black

Will solve the rust problems of your customers

Paint Over Rust
Penetrate and Seal Rusted Pits
Prevent More Rust Forming
Form a Hard Permanent Surface or Undercoater

The Wilbur & Williams Company
Park Square Building BOSTON
Specialists in Metal Protection

Paint, Mill White, Factory Interior

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carter Paint Company, Liberty, Indiana.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goheen Corp. of New Jersey, Newark, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Menaugh & Co., Chicago, Ill.
Medusa Portland Cement Co., Cleveland, O.
National Copper Paint Corp., Chicago, Ill.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co. (Paint and Varnish Division), Milwaukee, Wis.
Quigley Co., Inc., New York, N. Y.
Reardon Co., The, St. Louis, Mo.
Rinald H. Co., W. Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Technical Products Co., Pittsburgh, Pa.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vortex Manufacturing Co., The, Cleveland.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston, Mass.
Wills Products Co., The, New York.

Paint Spraying Guns

(See "Guns, Paint Spraying")

Paint, Waterproofing

(See "Compounds and Paints, Waterproofing")

Painting Machines and Equipment

(See "Machines and Equipment, Painting and Whitewashing")

Pans, Acid and Annealing

Littleford Bros., Cincinnati, Ohio.
Northwest Lead Co., Seattle, Wash. (Acid only)

Pans, Drip

Angle Steel Stool Co., Plainwell, Mich.
Burt Manufacturing Co., The, Akron, O.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pans, Dust, Factory

Angle Steel Stool Co., Plainwell, Mich.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.

Pans, Lathe

Angle Steel Stool Co., Plainwell, Mich.
Littleford Bros., Cincinnati, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.

Pans, Shop and Assembly

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The, (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Geuder Paeschke & Frey Co., Milwaukee.
Littleford Bros., Cincinnati, Ohio.
Palmer-Bee Co., Detroit, Mich.
Stevens, Walden, Inc., Worcester, Mass.

Paper, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Central Asbestos & Magnesia Co., Chicago.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paper, Roofing

Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Ruberoid Co., The, New York, N. Y.

Paper and Cloth—Sand, Emery, Garnet and Flint

Armour Sand Paper Works, Chicago, Ill.
Baeder Adamson Co., Philadelphia, Pa.
Barton, H. H., & Son Co., Troy, N. Y.
Behr-Manning Corporation, Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Cleveland Container Co., The, Cleveland.
Clover Mfg. Co., Norwalk, Conn.
Grobet File Corp. of America, New York.
Mid-West Abrasive Co., Detroit, Mich.
Wausau Abrasives Co., St. Paul, Minn.

Partitions, Factory, Wire

American Chain Co., Inc., Bridgeport, Conn.
Buffalo Wire Works Co., Inc., Buffalo.
Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.

Partitions, Steel

Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O. (Movable)
Lupton's, David, Sons Co., Philadelphia.

Paste, Pipe Covering

Armstrong Cork Products Co., Lancaster, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paste, Soldering

American Solder & Flux Co., Philadelphia.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Dunton, M. W., Co., The, Providence, R. I.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
McGill Mfg. Co., Valparaiso, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.

Pattern Letters and Figures

(See "Letters and Figures, Pattern")

Pegs, Belt Lacing

(See "Pins or Pegs, Belt Lacing")

Pickers, Loom

Chicago Rawhide Mfg. Co., The, Chicago.
Gates Electric Co., Schenectady, N. Y.
General Electric Co., Schenectady, N. Y.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Schieren, Chas. A., Co., New York, N. Y.

Picks, Mattocks and Grub Hoes

Ames, Baldwin, Wyoming Shovel Co., North Easton, Mass.
Collins Co., The, Collinsville, Conn.
Hubbard & Co., Pittsburgh, Pa.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Littleford Bros., Cincinnati, Ohio.

Picks, Mill and Boiler

Leetonia Tool Co., The, Leetonia, Ohio
Onesti Bros., Highland Park, Ill.

Pike Poles

(See "Poles, Pike")

Pilers

(See "Elevators, Pilers or Stackers, Portable")

Pillow Blocks

(See "Blocks, Pillow")

Pincers, Blacksmiths' and Carpenters'

Crescent Tool Co., Jamestown, N. Y.
Hammel, Riglander & Co., Inc., New York.

UMI

CLOVER MFG. CO. Norwalk, Conn.

ABRASIVE PAPERS AND CLOTHS—GRINDING COMPOUNDS

CLOVER GREEN-STRIPE FLINT SANDPAPER

One Ream Packages

Standard	Special
9" x 11" Sheets	8¾"x10½" Sheets
Grades No. 4/0 to No. 3	Grades No. 3/0 to No. 3

SANDPAPER IN DISPLAY SHELF BOXES

Standard	Special
9"x11" Sheets	8¾"x10½" Sheets

CLOVER GREEN-STRIPE FLINT FINISHING PAPER

9"x11" sheets. Half-ream packages
Made in Open Coat only
Grades No. 5/0 to No. 2/0

CLOVER GREEN-STRIPE FLINT PAPER 50-YARD ROLLS

Grades No. 3/0 to No. 3
Widths 1" to 24"

CLOVER GREEN-STRIPE HOUSEHOLD SANDPAPER

36—10c packs in Display Box

Each 10c. pack contains 20 sheets in assorted grits, in a colored wrapper.

SANDPAPER ROLLS

For use on commutators and other electrical work.

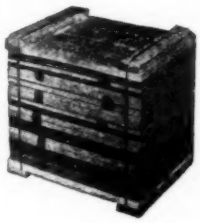
50-yard rolls, 1-inch width
Grade Nos. 3/0, 2/0, and 1/0

HOUSEHOLD METAL-CUTTING AND EMERY CLOTH

1 dozen 10c. packs in Display Box

Each 10c. pack contains 6 sheets assorted grits of Emery and Aluminous Oxide Cloth, in a colored wrapper.

CLOVER ORANGE-STRIPE GARNET PAPER



Finishing Paper

Made in Open Coat only
Flexible Light-Weight backing
Grades No. 7/0 to No. 1/0
9"x11" sheets. Half-ream packages

Cabinet Paper

Grades No. 4/0 to No. 3½
Open and Closed Coats in Grades No. 4/0 to No. 2
Closed Coat only in Grades Nos. 2½, 3 and 3½
9"x11" sheets. Half-ream packages

CLOVER ORANGE-STRIPE GARNET 50-YARD ROLLS

Cloth

Grades No. 4/0 to No. 3
Standard widths

"J" Backing (Jeans) No. 4/0 to No. ½ Open and Closed Coats.
"X" Backing (Drills) Open Coat No. 3/0 to No. 1½.
Closed Coat No. 3/0 to No. 3.

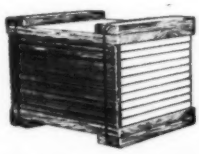
Paper

Grades No. 6/0 to No. 3.
Standard Widths
Open Coat No. 3/0 to No. 3.
Closed Coat all grades.

CLOVER ORANGE-STRIPE GARNET COMBINATION

50-Yard Rolls

Paper Backing Reinforced with Cloth.
Made in Closed Coat only.
Grades No. 1/0 to No. 3½. Standard widths.



CLOVER RED-STRIPE TURKISH EMERY CLOTH

Half-ream Packages
Standard 9"x11" sheets
Grades No. 3/0 to No. 3
Also packed in Display Shelf Boxes

CLOVER YELLOW-STRIPE ALUMINOUS OXIDE CLOTH ROLLS

50 Yards

Mechanics Rolls

Grades No. 9/0 to No. 3
Widths 1", 1½" and 2"

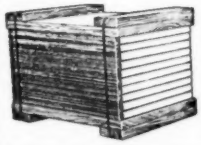
CLOVER YELLOW-STRIPE ALUMINOUS OXIDE ROLLS

Metal-Working Cloth

Grades No. 9/0 to No. 3
Standard widths

CLOVER MFG. CO. Norwalk, Conn.

ABRASIVE PAPERS AND CLOTHS—GRINDING COMPOUNDS



CLOVER YELLOW-STRIPE ALUMINOUS OXIDE METAL-WORKING CLOTH

For general machine shop use—the only abrasive that will cut hard metals. 9"x11" sheets. Half-ream packages Grades No. 9/0 to No. 3.

CLOVER YELLOW-STRIPE ALUMINOUS OXIDE WOOD-WORKING PAPER

9"x11" sheets

Finishing Paper
Open Coat only
Flexible Light-Weight backing.
Grades No. 9/0 to No. 1/0

Half-ream packages

Cabinet Paper
Grades No. 4/0 to No. 3½
Open and Closed Coats in Grades No. 4/0 to No. 2.
Closed Coat only in Grades Nos. 2½, 3 and 3½

CLOVER YELLOW-STRIPE ALUMINOUS OXIDE WOOD-WORKING ROLLS

50 yards

Cloth
Made in Grades No. 4/0 to No. 3.
Standard widths.
"J" Backing (Jeans) No. 4/0 to No. ½ Open and Closed Coats.
"X" Backing (Drills) Open Coat No. 3/0 to No. 1½.
Closed Coat No. 3/0 to No. 3.

Paper
Made in Grades No. 6/0 to No. 4.
Standard widths.
Open Coat made in all grades and widths.
Closed Coat made in all widths, and in all grades except No. 4.

SPECIAL ITEMS

Aluminous Oxide Metal-Working Cloth Belts and Discs.
Aluminous Oxide Wood-Working Paper and Cloth Belts and Discs

CLOVER YELLOW-STRIPE ALUMINOUS OXIDE COMBINATION ROLLS

Paper Backing Reinforced with Cloth. 50-Yard Rolls.
Made in Closed Coat only. Grades No. 1/0 to No. 3½.
In All Standard Widths

CLOVER BLUE-STRIPE SILICON CARBIDE PAPER

Finishing Paper
Open Coat on "A" weight backing.
9"x11" sheets. Half-ream packages.
Grades No. 9/0 to No. 3/0.

"C" and "E" Weights
Grades No. 6/0 to No. 1½.
9x11", 9x11½" and 9x12" sheets. Half-ream packages.
"C" Weight Grades No. 6/0 to No. 2/0. Open Coat only.
"E" Weight Grades No. 6/0 to No. 1½. Closed Coat only.

CLOVER BLUE-STRIPE SILICON CARBIDE PAPER, CLOTH AND COMBINATION ROLLS

In all Standard Widths and Grits.

CLOVER YELLOW-STRIPE ALUMINOUS OXIDE FLOOR-SANDING PAPER ROLLS

50-Yards
Grades No. 2/0 to No. 4. Standard widths.
Open Coat all grades and widths.
Closed Coat in all widths and in all grades except No. 4.

ECONOMY PACKAGES

Each box contains enough material for 10 drum covers.
Grades No. 2/0 to No. 4. Widths 8" and 12".

SHOP ABRASIVES

Garnet Paper and Cloth Belts and Discs.
Aluminous Oxide and Garnet Combination Belts and Discs.

CLOVER GRINDING AND LAPPING COMPOUNDS

CLOVER VALVE-GRINDING COMPOUND

4-oz. and 2-oz. Duplex Cans
Containing equal parts
Grades E for Roughing, A for Finishing
The compound in these cans is suitable for grinding valves, lapping cylinders, fitting piston rings, etc.

CLOVER LAPPING COMPOUNDS

For Shop, Tool Room and Garage
Put up One Grade to the Can
¼-lb., ½-lb., 1-lb., 5-lb. Cans
8 Grades
From Grade 2-A to Grade 50

CLOVER WATER-MIXED VALVE-GRINDING COMPOUND

One Grade to the Can
Two Grades
Medium and Coarse
2-oz., ¼-lb., 1-lb. Cans.

● IT'S ALL HERE!—Everything the Mill Supply House, the Industrial or the Wood-Working plant may require.

● AND IT'S ALL GOOD! Nothing better in quality can be or has been produced—you have our guarantee as to this, and our guarantee is as good as gold.

● AS FOR PRICES—All we can say is we have never failed to meet competition; and, more often than not, we lead the way to increasingly better values.

● OUR PLANT—Nothing more modern or up-to-the-minute, with complete technical control of each operation.

● SERVICE—We maintain large stocks at the various trade centers—have our own travelers covering the entire country — experts in our products.

● We have ample sales helps for our distributors, and expert service men.

● RESPONSIBILITY—We are strong financially—have no debts—have already secured a substantial share of the entire industry and are growing every day.

● WHY NOT HOOK UP WITH A WINNER?

Heller Brothers Co., Newark, N. J.
Sargent & Co., New Haven, Conn.

Pinions
(See "Gears and Pinions")

Pins or Pegs, Belt Lacing
Chicago Rawhide Mfg. Co., Chicago, Ill.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Tilghman, T. H., & Sons, Salisbury, Md.
Western Rawhide & Belting Co., Milwaukee, Wis.

Pins, Bending, Plumbers'
Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.

Pins, Cotter
(See "Cotter Pins and Spring Keys")

Pins or Plugs, Drift
Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.
Stanley Rule & Level Plant, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Pins, Taper
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, O.
Dallett Co., The, Philadelphia, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Worcester Taper Pin Co., Worcester, Mass.

Pins, Turn, Plumbers'
Bernz, Otto, Co., Inc., Rochester, N. Y.
Johnson, William, Inc., Newark, N. J.

Pipe Bending Machines
(See "Machines, Bending, Pipe")

Pipe Bends and Coils
(See "Bends and Coils, Pipe")

Pipe, Black and Galvanized, Steel—Steam, Water and Gas
Allegheny Steel Co., Brackenridge, Pa.
American Rolling Mill Co., The, Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Keating, E. F., Co., New York, N. Y.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Naylor Pipe Co., Chicago, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Black and Galvanized, Wrought Iron—Steam, Water and Gas
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Byers, A. M., Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.

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Midland Tube & Pipe Co., Bordentown, N. J.
Mueller Brass Co., Port Huron, Mich.
Naylor Pipe Co., Chicago, Ill.
Pancoast, Henry B., Co., Philadelphia.
South Chester Tube Co., Chester, Pa.
Walworth Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pipe, Brass and Copper
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Roberts Brass Co., Milwaukee, Wis.
Roessing Manufacturing Co., Pittsburgh.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

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Clow, James B., & Sons, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

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American Car and Foundry Co., New York.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Pacific States Cast Iron Pipe Co., Provo, Utah.

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Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Medina Iron & Brass Co., Medina, N. Y.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

Pipe, Conductor
(See "Down Spouts or Conductor Pipe")

Pipe, Copper
(See "Pipe, Brass and Copper" and "Tubing—Brass, Bronze and Copper")

Pipe, Covering
(See "Covering, Pipe and Boiler")

Pipe Cutting and Threading Machines and Tools
(See "Machines, Cutting and Threading, Pipe," "Stocks and Dies," and "Dies, Pipe Threading," "Cutters, Pipe" and "Cutters, Lead Pipe")

Pipe, Drive
Bethlehem Steel Co., Bethlehem, Pa.
Hitner's, Henry A., Sons Co., Philadelphia.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh, Pa.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Fabricated
American Rolling Mill Co., The, Middletown, Ohio.
Bartlett Hayward Co., The, Baltimore, Md.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Keating, E. F., Co., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Littleford Bros., Cincinnati, Ohio.
Midland Tube & Pipe Co., Bordentown, N. J.
Mitchell, W. K., & Co., Inc., Philadelphia.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wolverine Tube Co., Detroit, Mich.

Pipe, Fibre
(See "Fibre, Hard")

Pipe Grooving Tools
(See "Tools, Grooving, Pipe")

Pipe Hangers
(See "Hangers, Pipe")

Pipe, Hard Rubber
Continental-Diamond Fibre Co., Newark, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., The, Akron, Ohio.

Pipe, Hydraulic
American Rolling Mill Co., The, Middletown, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Giberson, E. D., & Co., Inc., New York.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Lead
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
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Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.

Pipe, Lead Lined

Keating, E. F., Co., New York, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.

Pipe Pushers

(See "Pushers, Pipe")

Pipe, Spiral, Riveted or Lock Seam

American Rolling Mill Co., The, Middletown, Ohio.
Fitz Water Wheel Co., Hanover, Pa.
Keating, E. F., Co., New York, N. Y.
Naylor Pipe Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Spiral, Welded

American Rolling Mill Co., The, Middletown, Ohio.
Naylor Pipe Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Steam Jacketed

Keating, E. F., Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.

Pipe, Straight Riveted

Bartlett Hayward Co., The, Baltimore, Md.
Fitz Water Wheel Co., Hanover, Pa.
Invincible Blow Pipe Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sacramento Pipe Works, Sacramento, Calif.

Pipes, Brazing and Blow

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Dockson, C. H., Co., Detroit, Mich.
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Kilborn and Bishop Co., The, New Haven, Conn.
Weldit Acetylene Co., Detroit, Mich.

Pipes, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Piping, Blow, Exhaust and Ventilating

Burt Manufacturing Co., The, Akron, O.
Naylor Pipe Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Planers, Metal Working

Rockford Machine Tool Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Planers, Woodworking

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Northfield Foundry & Machine Co., Northfield, Minn.
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Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
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Planes, Electric, Portable

Heston & Anderson, Fairfield, Iowa.
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Foxboro Co., The, Foxboro, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Murray, William H., Richmond Hill, New York, N. Y.
Trill Indicator Co., Corry, Pa.

Plates, Angle, for Boring and Grinding Machines

Standard Electrical Tool Co., The, Cincinnati, Ohio.

Plates, Base

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Rolling Mill Co., The, Middletown, Ohio.
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Crucible Steel Co. of America, New York, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hudson-Sharp Machine Co., Green Bay, Wis.
Huron Industries, Inc., Alpena, Mich.
Link-Belt Co., Chicago, Ill.
Noyes, B. B., Co., Greenfield, Mass.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Plates, Belt

(See "Fasteners and Hooks, Belt")

Plates, Floor and Ceiling

American Rolling Mill Co., The, Middletown, Ohio.
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(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

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Everhot Mfg. Co., Maywood, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.) Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Messmer Brass Co., St. Louis, Mo.
Newman Bros., Inc., Norwood, Cincinnati, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Prier Brass Mfg. Co., Kansas City, Mo.
Sargent & Co., New Haven, Conn.
Torrey Roller Bushing Works, Bath, Me.
Turner Brass Works, The, Sycamore, Ill.

Plates, Name, Machinery

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Moss, Henry, & Co., Inc., Brooklyn, N. Y.
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Pannier Bros. Stamp Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
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Jones & Laughlin Steel Corp., Pittsburgh.
Wheeling Steel Corp., Wheeling, W. Va.

Plates, Ring, for Pipe

Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fitting Co., Barberton, Ohio.

Plates, Screw

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Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
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Greenfield Tap & Die Corp., Greenfield, Mass.
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Moak Machine & Tool Co., Port Huron, Mich.
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Taft-Peirce Manufacturing Co., Woonsocket, R. I.

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(See "Brushes, Platers' and Polishers'")

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Erie Tool Works, The, Erie, Pa.
Fletcher-Terry Co., The, Forestville, Conn.
Forged Steel Products Co., Newport, Pa.
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(See "Pins or Plugs, Drift")

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Consolidated Brass Co., Detroit, Mich.
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Elco Tool & Screw Corp., Rockford, Ill.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hartford Machine Screw Co., Hartford, Conn.
Haydenville Co., The, Haydenville, Mass.
Holo-Krome Screw Corp., Bristol, Conn.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
United Screw & Bolt Corp., Cleveland, O.
Walworth Co., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, Franklin, Inc., Orange, N. J.

Plugs, Pipe, Cast Iron

Allen, W. D., Mfg. Co., Chicago, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
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Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Plugs, Pipe, Steel

Allen Mfg. Co., The, Hartford, Conn.
Allen, W. D., Mfg. Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., Bristol, Conn.
Kerotest Manufacturing Co., Pittsburgh.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
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Key Co., East St. Louis, Ill.

Plugs, Tap, Boiler and Pipe Repair

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Holland Rubber Co., New York, N. Y.
Multi-Seal Manufacturing Co., Chicago, Ill.
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Parker-Kalon Corp., New York, N. Y.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

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Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Brown & Sharpe Mfg. Co., Providence, R.I.
Dietzgen, Eugene Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Ruleta Co., Inc., New York, N. Y.
Sargent Co., Chicago, Ill.
Starrett, L. S., Co., The, Athol, Mass.

Plumbago

(See "Graphite")

Plumbers' Tools

(See "Tools—Plumbers', Steam and Gas Fitters' ")

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American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Chicago Rawhide Mfg. Co., The, Chicago.
Coleman, Allan J., Chicago, Ill.
Holland Rubber Co., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Schieren, Chas. A., Co., New York, N. Y.

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Cleveland Twist Drill Co., The, Cleveland.
Crucible Steel Co. of America, New York, N. Y.
Dallett Co., The, Philadelphia, Pa.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Star Expansion Bolt Co., New York, N. Y.

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Points and Centers, Lathe

(See "Centers and Points, Lathe")

Points, Stone

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Cincinnati Tool Co., The, Cincinnati, Ohio.
Crucible Steel Co. of America, New York, N. Y.
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Vulcan Tool Mfg. Co., Quincy, Mass.

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National Tube Co., Pittsburgh, Pa.
Sacramento Pipe Works, Sacramento, Calif. (Steel)

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Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
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Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia.

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Grady Mfg. Co., The, Long Island City, N. Y.
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Hinds and Coon Co., Boston, Mass.
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Polishing Supplies

(See "Plating and Polishing Supplies")

Polishing Wheels

(See "Wheels, Buffing and Polishing")

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Armstrong Bros. Tool Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.

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Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
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Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Williams, J. H., & Co., New York, N. Y.

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Trent, Harold E., Co., Philadelphia, Pa. (Electric)

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(See "Furnaces, Soldering")

Pots, Galvanizing

(See "Kettles and Pots, Galvanizing")

Pots, Glue

(See "Heaters and Pots, Glue")

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General Electric Co., Schenectady, N. Y.
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Littleford Bros., Cincinnati, Ohio.
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Hauck Manufacturing Co., Brooklyn, N. Y.
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Johnson, William, Inc., Newark, N. J.
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Minnich Machine Works, Landisville, Pa.
Rowe Manufacturing Co., Galesburg, Ill. (Paper)
Taliman Manufacturing Co., Shelbyville, Ill.
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(See "Machines, Drilling")

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(See "Riveters")

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Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
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Lourie Manufacturing Co., Chicago, Ill.
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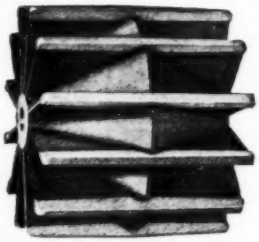

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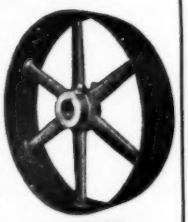

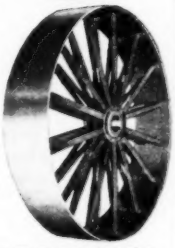

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Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Dynamo

(See "Pulleys, Motor")

Pulleys, Flanged

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Birkle Machine Works, Chicago, Ill.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, O.
Link-Belt Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry and Machine Co., Chicago.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Fly Wheel

(See "Wheels, Fly")

Pulleys, Friction Clutch

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Conway Clutch Co., The, Cincinnati, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Moore-Master Mfg. Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Guide or Gallows

Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Link-Belt Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

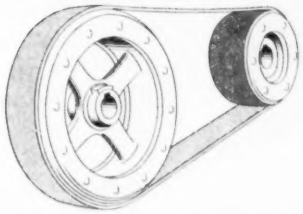
Pulleys, Loose

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Arguto Oilless Bearing Co., Wayne Junction, Philadelphia, Pa.
Birkle Machine Works, Chicago, Ill.
Brown, D. P., & Co., Philadelphia, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago.
Covel-Hanchett Co., Big Rapids, Mich.
Diamond Iron Works, Inc., Minneapolis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webb, J. A., Belting Co., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Magnetic

Link-Belt Co., Chicago, Ill.
Magnetic Manufacturing Co., Milwaukee.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

ROCKWOOD
PULLEYS THAT PULL



2540 STOCK SIZES

- - Solid and Split Pulleys - -

for MOTORS, LINESHAFTS and DRIVEN MACHINES

ROCKWOOD Pulleys—built of tough, end-grain fibre that GRIPS and PULLS the belt—are far superior to metal or wood pulleys. Sell them for driven machines and lineshafts, as well as for motors. Their use assures maximum machine capacity and cuts power cost.

Immediate shipments. Write for handy size book and price list.

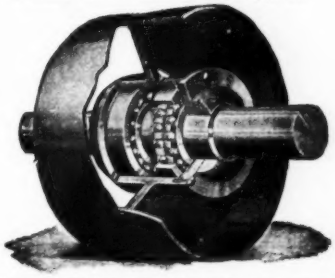
THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Sell Your Customers
DAGGETT
BALL BEARING LOOSE PULLEYS

for machines, centers, mules, idlers and clutches

and save them—

- Time in Daily Oiling
- Cost of Lubricant
- Cost of Replacements
- Power Loss by Friction
- Time Loss When Trouble Appears



Daggett Ball Bearing Loose Pulleys are simple in construction and accurately machined, and will carry a belt at any working load or speed without heating. Bearings are dust-proof and require no attention except renewal of lubricant 4 to 6 times a year according to speed conditions.

Quick service given on all orders from distributors. Ask for our price list and liberal distributor terms. Our engineers are ready to assist you in your sales problems.

CHICAGO PULLEY & SHAFTING CO.
19 No. Desplaines St. CHICAGO, ILL.

Pulleys, Motor

American Pulley Co., The, Philadelphia.
Atlas Leather Co., Caseyville, Ill. (Leather fibre)
Brown, D. P., & Co., Philadelphia, Pa.
Birkle Machine Works, Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Maurey Manufacturing Corp., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Smith, Winfield H., Inc., Springville, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y. (Fibre)

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

Vacuum Cup Metal Pulley Co., Detroit, Mich.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys and Wheels, Paper

Birkle Machine Works, Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Pulleys, Roller Bearing

Bond, Charles, Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mashawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Palmer-Bee Co., Detroit, Mich.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Rope

(See "Sheaves, Rope, Power Transmission")

Pulleys, Steel

American Pulley Co., The, Philadelphia.
Chain Belt Co., Milwaukee, Wis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Maurey Manufacturing Corp., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

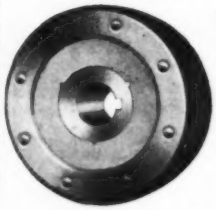
Pulleys, Steel Rim, Iron Center

Medart Co., St. Louis, Mo.

Pulleys, Step and Taper Cone

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Concord Foundry & Machine Co., Concord, N. H.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.

BROWNING
PAPER PULLEYS



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Ohio Valley Pulley Works
Div.—General Fibre Products, Inc.
Maysville, Ky.

DICK DRIVES
and Power Transmission specialties

DICKBELT, the original Balata Belt
For transmission of Power, Conveying and Elevating, combines great strength and durability with perfect uniformity and complete immunity to water and steam.

DICKROPE DRIVES
Complete lines of V Belts and Sheaves suitable for all types of these very modern power units.

DICKVALVES Flat and Tapered
For Oil Field—Mine or City Hydrant—moulded to perfect fit. Of proven quality for enduring service.

BARRY Steel Split PULLEY
Scientifically strong

The spot welded Pulley with maximum adaptation of tubular construction.

R. & J. DICK CO., Inc.
PASSAIC, N. J.
Branches: New York, Chicago, San Francisco, Seattle, Kansas City, New Orleans.
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Barry Pulley Co., Inc., Muscatine, Iowa

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330 W. 42nd St. « « » » New York

Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Textile, Special

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Pulleys, Wood

Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Lignum-Vitae Products Corp., Jersey City, N. J.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Miller Machine Works, Springs, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Oneida Wood Pulley Co., Inc., Oneida, N. Y.
Pyott Foundry & Machine Co., Chicago, Ill.
Reeves Pulley Co., Columbus, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Wood Rim, Iron Center

Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Ohio Valley Pulley Works, Inc., Maysville, Ky.

Pump Jacks

Aurora Pump Co., Aurora, Ill.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hudson-Sharp Machine Co., Green Bay, Wis.
Joyce-Cridland Co., The, Dayton, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Midland Mfg. Co., Ft. Worth, Tex.
Nelson Bros. Co., Saginaw, Mich.
Oliver-Barth Jack Co., Milwaukee, Wis.
Watson-Stillman Co., The, Roselle, N. J.

Pumps, Bilge, Sewage and Sump

(See also "Drainers, Cellar or Pit")

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Pumps, Inc., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
List, E. J., Mfg. Co., Havana, Ill.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
Mall Tool Co., Chicago, Ill.
McGowan, John H., Co., The, Cincinnati.
Morris Machine Works, Baldwinsville, N. Y.
Mummert-Dixon Co., Hanover, Pa.
Myers, F. E., & Bro. Co., Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.

Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Watson & McDaniel Co., Philadelphia, Pa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp, Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Feed

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Buffalo Pumps, Inc., Buffalo, N. Y.
Steam Pump Works Co., Columbus, Ohio.
Engineering Corp., New York, N. Y.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Cal.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse.
Pennsylvania Pump & Compresser Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., St. Joseph, Mich.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Test

Belfield, H., Co., Philadelphia, Pa.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Scully-Jones & Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.

Pumps, Cellar Drainer

(See "Drainers, Cellar or Pit")

Pumps, Centrifugal

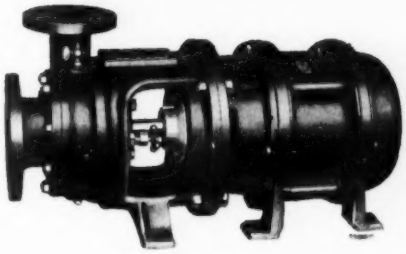
Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Pumps, Inc., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Crane Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
DeLaval Steam Turbine Co., Trenton, N. J.

CAMERON PUMPS

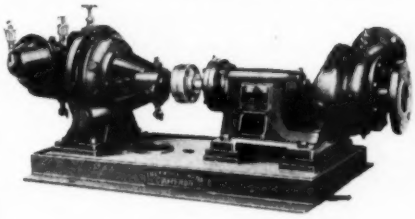
A size and type of pump for every duty. Complete sales and engineering service. Stock shipment on most items. You can do a better and more profitable job with Cameron pumps.

The MOTORPUMP

A compact modern pump with built-in motor. Capacities from 5 to 1000 gals. per min. Stock shipment.



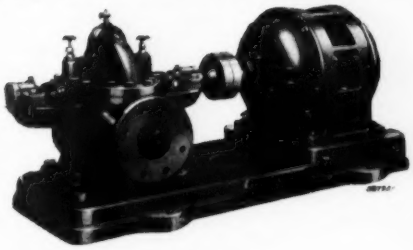
END-SUCTION COUPLED PUMPS



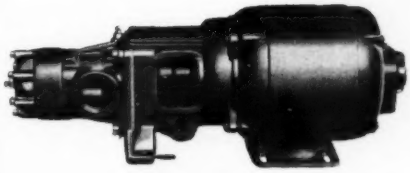
A rugged, efficient pump for use with any type of driver. Capacities from 10 to 1000 gals. per min.

DOUBLE-SUCTION COUPLED PUMPS

A high quality pump for general service. Capacities from 50 to 5000 gals. per min. Quick shipment.



The CAM-PUMP



A rotary pump for oils and lubricating liquids. Capacities from 1 to 70 gals. per min.

Ingersoll-Rand

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PUMPS FOR ALL USES

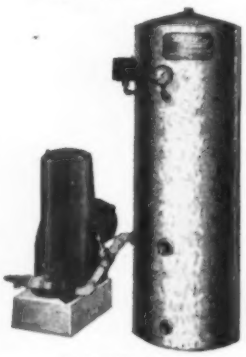
Deep Well Turbines

With our exceptionally complete line of

Centrifugal Pumps
Deep Well Turbines
Shallow Well Water Systems
Deep Well Water Systems
Hand Pumps and Cylinders
Mine Pumps—Rotary Pumps
Pumps for Special Purposes

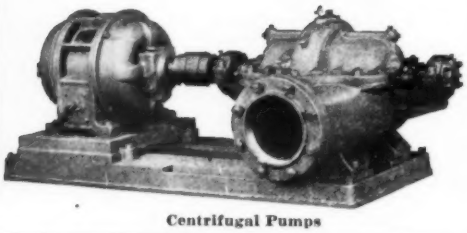
You can secure practically your entire pump line from a single source of supply.

Write for complete catalog.


Water Systems

The Deming Co.

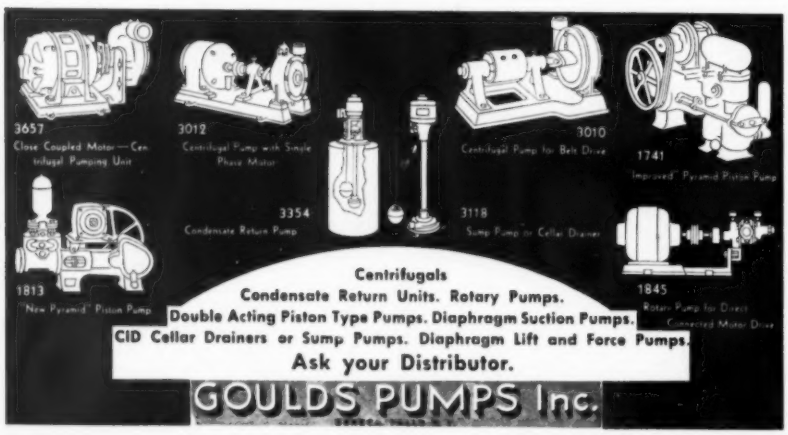
Est. 1880 **Salem, Ohio**


Centrifugal Pumps

Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoffman Specialty Co., Waterbury, Conn.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, Ohio.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Circulating, Rotary Geared

Atlas Brass Foundry Co., The, Columbus, Ohio.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.



Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Meier Electric and Machine Co., Indianapolis, Ind.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Cistern and Sink

Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind. (Cistern only)
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hartley, C. J., & Co., Peoria, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mast, Foos & Co., Springfield, Ohio.
Meier Electric and Machine Co., Indianapolis, Ind.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Nelson Bros. Co., Saginaw, Mich.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.

Pumps, Condensation

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Pumps, Inc., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Deep Well

Aldrich Pump Co., The, Allentown, Pa.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Chicago Pneumatic Tool Co., New York.
Crane Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.

McGowan, John H., Co., The, Cincinnati, O.
Mark, Clayton & Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Meier Electric and Machine Co., Indianapolis, Ind.
Midland Mfg. Co., Ft. Worth, Tex.
Myers, F. E., & Bro. Co., The, Ashland, O.
Pomona Pump Co., Pomona, Calif.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Diaphragm

Boston & Lockport Block Co., East Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Construction Machinery Co., Waterloo, Ia.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Meier Electric and Machine Co., Indianapolis, Ind.
Nelson Bros. Co., Saginaw, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Westco Pump Corp., Davenport, Iowa.

Pumps, Drainage

(See "Pumps, Irrigation and Drainage")

Pumps, Dredging

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Aurora Pump Co., Aurora, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Duplex

American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Buffalo Pumps, Inc., Buffalo, N. Y.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Ingersoll-Rand Co., New York, N. Y.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Penberthy Injector Co., Detroit, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Fire

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md. (Portable)
Manistee Iron Works, Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gas Drip

American Steam Pump Co., Battle Creek, Mich.
Century Pump Co., The, Brooklyn, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Rumsey Pump Co.,Ltd., Seneca Falls, N. Y.

Pumps, Gasoline and Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Best, W. N., Corp., New York, N. Y.
Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Instrument Co. of America, Inc., Baltimore, Md. (Electrical)
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Mars Co., The, Aurora, Ill.
Mechanical Devices Co., Bloomington, Ill.
Miller Mfg. Co., Cedar Falls, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkins Marine Lamp Corp., Brooklyn.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gauge Testing

(See "Testers or Test Pumps, Gauge")

Pumps, Hand and Windmill, Force and Lift

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Deming Co., The, Salem, Ohio.

Get Our LOW PRICE on this 2", 10,000 Gal. Size

JAEGER "SURE PRIME" PUMPS SELL FASTER..

2"—3"—4"—6"—8" SIZES

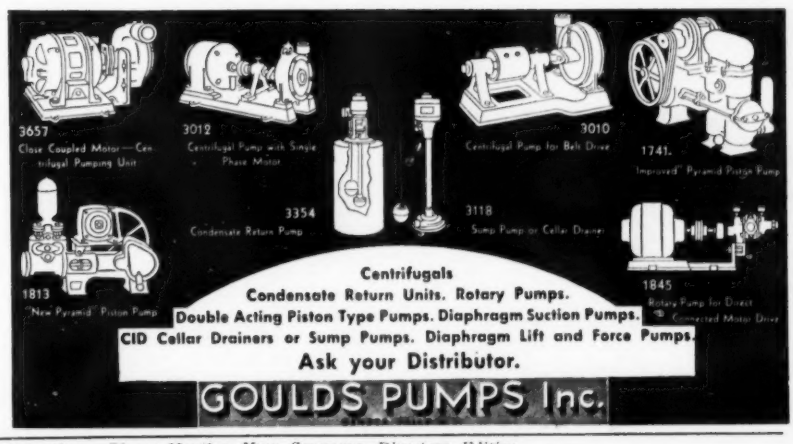
Beat competition, make money with America's fastest selling line of compact, portable, sure priming centrifugals. Amazingly low prices. Write us.

THE JAEGER MACHINE CO.
501 Dublin Avenue, Columbus, Ohio

Domestic Engineering & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nelson Bros. Co., Saginaw, Mich.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkins Marine Lamp Corp., Brooklyn.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J. (High pressure)

Pumps, Heavy Liquid

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.



Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McGowan, John H., Co., The, Cincinnati.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Romec Pump Co., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydraulic

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bernard, Charles A., Machine Co., Gardner, Mass.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown & Sharpe Mfg. Co., Providence.
Cardwell Machine Co., The, Richmond, Va.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Bryon, Co., Los Angeles, Calif.
Keckley, O. C., Co., Chicago, Ill.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
McGowan, John H., Co., The, Cincinnati.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydro-Pneumatic

American Steam Pump Co., Battle Creek, Mich.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Irrigation and Drainage

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Cal.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Mast, Foos & Co., Springfield, Ohio.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Pomona Pump Co., Pomona, Calif.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D. Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Jet, Steam or Water

American Injector Co., Detroit, Mich.
Blakeslee Mfg. Co., DuQuoin, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Hennebohle, Frank, Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Ross Heater & Mfg. Co., Inc., Buffalo.
Schutte & Koerting Co., Philadelphia.
Tranter Mfg. Co., Pittsburgh, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.

Pumps, Lubricating and Cooling, for Machine Tools

Alemite Corp., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Manzel Brothers Co., Buffalo, N. Y.
Mechanical Devices Co., Bloomington, Ill.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.

Pumps, Measuring

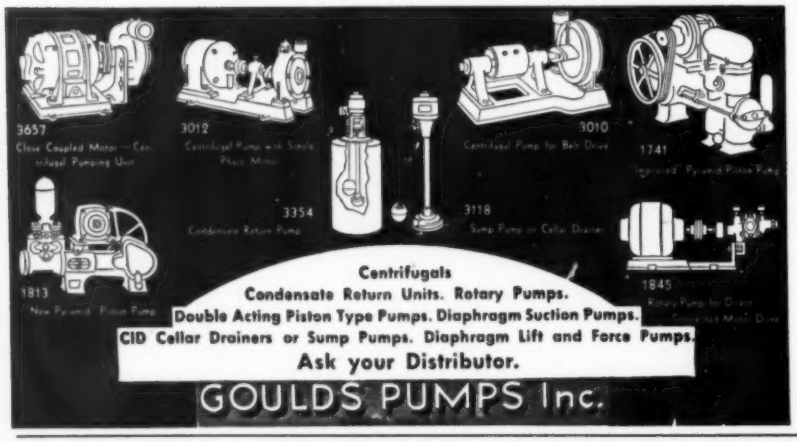
(See "Pumps, Gasoline and Oil")

Pumps, Oil, Lubricating

Alemite Corp., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bowser, S. F., and Co., Fort Wayne, Ind.
Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Brass Co., Detroit, Mich.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Essex Brass Corp., Detroit, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.
Mechanical Devices Co., Bloomington, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Plews Oiler Co., Minneapolis, Minn.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Power

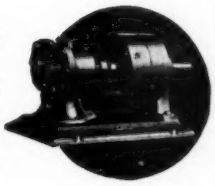
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Pumps, Inc., Buffalo, N. Y.
Cardwell Machine Co., The, Richmond, Va.
Construction Machinery Co., Waterloo, Ia.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kinney Manufacturing Co., Boston, Mass.

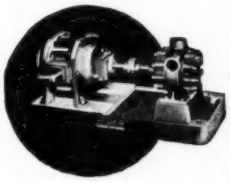


SELL THE
Complete Line OF
ROPER PUMPS

GENERAL USE

for handling any clean liquid in factories, cold storage plants, chemical plants, dyers and cleaners, etc. (Write for Bulletin MSR-3).



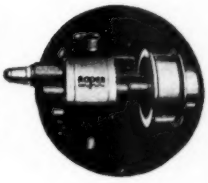


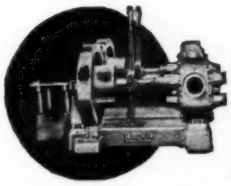
POWER TRANSMISSION

for hydraulic automobile lifts, elevators, presses, stokers, snow plows, etc. (Write for Bulletin MSR-5).

MACHINE TOOLS

for handling cutting compounds and lubricating liquids on metal working machines. (Write for Bulletin MSR-4).



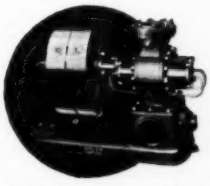


GASOLINE AND OILS

especially suited for transferring petroleum products in bulk stations, refineries, etc. (Write for Bulletin MSR-7)

HAND TRANSFER

rotary gear or vane type, for handling thin or thick liquids. Attach to any type container. (Write for Bulletin MSR-2).



HEAVY LIQUIDS

steam jacketed for handling asphaltum, creosote, glucose, molasses, tar and other viscous liquids. (Write for Bulletin MSR-9).

GEO. D. ROPER CORP.
Rockford, Illinois

PUMPS

Loane Engineering Co., Baltimore, Md. (Portable)
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Mast, Foos & Co., Springfield, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Meier Electric and Machine Co., Indianapolis, Ind.
Miller Mfg. Co., Cedar Falls, Iowa.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Power Manufacturing Co., The, Marion, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Rotary

Blackmer Pump Co., Grand Rapids, Mich.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Fairbanks Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Gibson, Geo. H., Co., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati.
Mechanical Devices Co., Bloomington, Ill.
Meier Electric and Machine Co., Indianapolis, Ind.
Miller Mfg. Co., Cedar Falls, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Oberdorfer, M. L., Brass Co., Syracuse.
Romec Pump Co., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Screw Test

Dean Hill Pump Co., Anderson, Ind.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.

Pumps, Sewage

(See "Pumps, Bilge, Sewage and Sump")

Pumps, Simplex

American Steam Pump Co., Battle Creek, Mich.
Dean Brothers Co., Indianapolis, Ind.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothrs Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Sinking

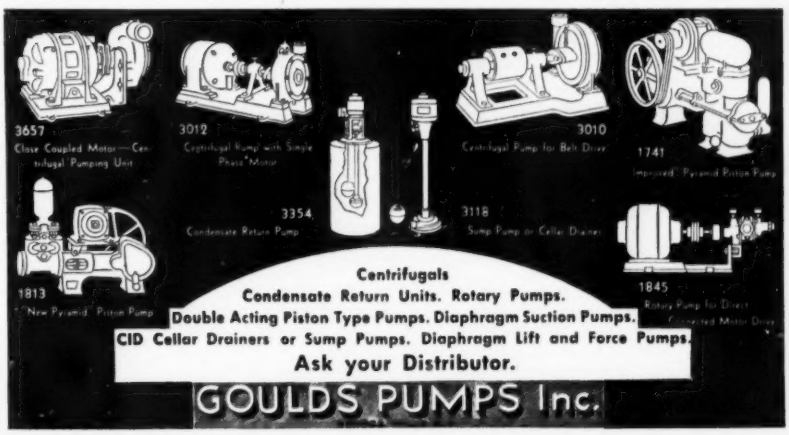
American Steam Pump Co., Battle Creek, Mich.
Coleman, Allan J., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N.Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Spray

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Campbell-Hausfeld Co., The, Harrison, O.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Goulds Pumps, Inc., Seneca Falls, N. Y.
H. D. B. Corporation, Chicago, Ill.
Houchin, Thos. W., Corp., Jersey City, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Paasche Airbrush Co., Chicago, Ill.
Romec Pump Co., Elyria, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Saylor-Beal Mfg. Co., Detroit, Mich.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Steam

American Steam Pump Co., Battle Creek, Mich.
Cardwell Machine Co., The, Richmond, Va.
Dean Brothers Co., Indianapolis, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
National Supply Co., Chicago, Ill. (Systems for oil)



National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Pulsometer Steam Pump Co., Irvington, N. J.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Sump

(See "Pumps, Bilge, Sewage and Sump," and "Drainers, Cellar or Pit")

Pumps, Tank

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan, John H., Co., The, Cincinnati, O.
Mars Co., The, Aurora, Ill.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Transfer, Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Blackmer Pump Co., Grand Rapids, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McGowan, John H. Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Romec Pump Co., Elyria, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swift Lubricator Co., Elmira, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Triplex

Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Luitwieler Pumping Engine Co., Rochester, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Romec Pump Co., Elyria, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Vacuum

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Chicago Pneumatic Tool Co., New York.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Electric Sprayit Co., The, Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Gardner-Denver Co., Quincy, Ill.
Gast Mfg. Co., The, Bridgman, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Leiman Bros., Inc., Newark, N. J.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Miller Improved Gas Engine Co., Springfield, Ohio.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Saylor-Beall Mfg. Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Skidmore Corp., St. Joseph, Mich.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Whitewash

Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Romec Pump Co., Elyria, Ohio.
Viking Pump Co. Cedar Falls, Iowa.

Pumps, Windmill

(See "Pumps, Hand and Windmill, Force and Lift")

Punch and Shears Combined

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Sons, Chicago, Ill.

Punches, Belt

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Schollhorn, Wm., Co., The, New Haven, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y.

AMERICAN SWISS
PUNCHES
A COMPLETE LINE
Pin, Center, Prick, Solid Metal and Arch Punches
ARCH PUNCHES

American Swiss File and Tool Co.
ELIZABETH, N. J.

Punches, Center

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hood Bros., Philadelphia, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Lufkin Rule Co., The, Saginaw, Mich.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David. Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Drift

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, O.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Hand Power

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
G. D. S. Shearing & Punching Machine Co., Inc., New York, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Morrill, Charles, Inc., New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Parker-Kalon Corp., New York, N. Y.

WHITNEY

LEVER PUNCHES

No. 1 PUNCH

Length — 34 inches. Capacity — ⅞-inch hole through ¼-inch iron. Punches and dies in sizes from ⅛ to 9/16 by 64ths. Weight—22 lbs.

No. 2 PUNCH

Length — 23 inches. Capacity — 5/16-inch hole through ¼-inch iron. Punches and dies in sizes 3/32-inch to ½-inch by 64ths. Weight—14 lbs.

CHANNEL IRON PUNCH

Companion to No. 2 Punch. Every part of the two Punches interchangeable, including punches and dies. Capacity — ¼-inch hole through ¼-inch iron. Weight—16½ lbs.

No. 4B PUNCH

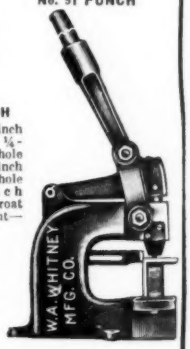
Length—8½ inches. Capacity ¼-inch through 16 gauge. Deep Throat—2 inches. Weight — 3 lbs. Punches and Dies—1/16" to 9/32" by 64ths.

No. 6 PUNCH

Length — 26½ inches. Capacity — ¼-inch hole through 3/16-inch iron; especially adapted for button punching or templet work. Punches and dies ⅛" to 9/32" by 32nds. Weight—10 lbs.

Extra punches and dies for Whitney Punches.

No. 91 PUNCH



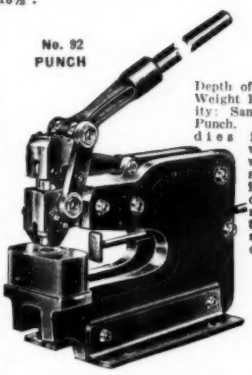
No. 91 PUNCH

Capacity — ⅝-inch hole through ¼-inch. 1-inch hole through 3/16-inch and 2-inch hole through ⅛-inch iron. Depth throat 5 inches. Weight—82 lbs.

No. 8 PUNCH

Capacity—¼" through ⅛" iron. Punches and dies 1/16" to 7/16" by 64ths. Weight 7½ lbs. Length 18½".

No. 92 PUNCH



Depth of throat 10 in. Weight 165 lbs. Capacity: Same as No. 91 Punch. Punches and dies interchangeable with No. 91. A valuable accessory is a notching punch and die that will notch angles up to 1½x1½x⅛" and cut a 90-deg. notch.

TRADE MARK
REGISTERED

W. A. Whitney Mfg. Co.

636 Race St. Rockford, Ill.

Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully-Jones & Co., Chicago, Ill.
Vlchek Tool Co., The, Cleveland, Ohio.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Wiedemann Machine Co., Philadelphia, Pa.

Punches, Hollow

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Lining-up

Cincinnati Tool Co., The, Cincinnati, Ohio.
Kraeuter & Co., Inc., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, New Britain, Conn.

Punches, Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Punches, Prick

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Railroad Track

Dudgeon, Richard, Inc., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Marchant, Geo. F., Co., Chicago.
Rock River Machine Co., Janesville, Wis.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punches, Saddlers'

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.

Punches, Screw

American Swiss File & Tool Co., Elizabeth, N. J.
Dudgeon, Richard, Inc., New York, N. Y.
Henderer's, A. L., Sons, Wilmington, Del.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Marchant, Geo. F., Co., Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Scully-Jones & Co., Tool Division, Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Solid

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Scully-Jones & Co., Tool Division, Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punching and Shearing Machines

(See "Machines, Punching and Shearing")

Purifiers, Feed Water

(See "Filters and Purifiers, Feed Water")

Purifiers, Steam

Blaw-Knox Co., Pittsburgh, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Pushers, Car

(See "Car Movers")

Pushers, Pipe

Giant Mfg. Co., Council Bluffs, Iowa.
Greenlee Bros. & Co., Rockford, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Putty

Colebrook's, W. H., Sons, Inc., Syracuse, N. Y. (Stove and boiler)
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio. (Rubber)
Sauereisen Cements Co., Pittsburgh, Pa.
Wills Products Co., The, New York, N. Y.

Pyrometers

Brown Instrument Co., The, Philadelphia.
Cleveland Instrument Co., The, Cleveland.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Republic Flow Meters Co., Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Quills or Hollow Shafts, Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Dumore Co., The, Racine, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Racks, Band Saw

Swett, Frank W., & Son, Chicago, Ill.

Racks, Barrel

Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Lewis-Shepard Co., Boston, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Schwenk Safety Device Corp., New York, N. Y. (Also carboy stands)
West Bend Equipment Corp., West Bend, Wis.

Racks, Gear and Pinion

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Ohio Forge & Machine Corp., Cleveland, O.
Pyott Foundry & Machine Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Steel Specialty Co., Beaver Falls, Pa.

Racks, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
C-O-Two Fire Equipment Co., Newark, N. J.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.
Jiffy Fire Hose Rack Co., New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Brass Foundry Co., New York.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Co., Philadelphia, Pa. (Fire)

Racks—Pipe, Shafting, Stock, Etc.

American Foundry & Mfg. Co., St. Louis.
Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Brown Engineering Co., Reading, Pa.
Illinois Gear & Machine Co., Chicago, Ill. (Cut gear racks)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Racks, Screw Machine

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown Engineering Co., Reading, Pa.
Cullman Wheel Co., Chicago, Ill.
Foote Gear Works, Inc., Cicero, Ill.

Racks and Stands, Tool

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Bros. Tool Co., Chicago, Ill.
Aurora Equipment Co., Aurora, Ill.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.

Rags, Wiping

(See "Cloths, Wiping, Machine")

Railings and Fittings, Brass

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
Newman Bros., Inc., Norwood, Cincinnati.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson Brass Co., Baltimore, Md.
Walworth Co., New York, N. Y.

Railings, Iron and Steel

Buffalo Wire Works Co., Inc., Buffalo.
Conco Engineering Works, Mendota, Ill.
Clopp, Geo. B., Iron Works, Philadelphia.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Littleford Bros., Cincinnati, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Iron only)
Walworth Co., New York, N. Y.

Rails and Accessories, Industrial

American Car & Foundry Co., New York.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Chase Foundry & Mfg. Co., Columbus, O.
Jones & Laughlin Steel Corp., Pittsburgh.
Ryerson, Joseph T., & Son, Chicago, Ill.

Rails, Guide, Elevator

Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Standard Steel Specialty Co., Beaver Falls, Pa.

Rakes

(See "Hoes, Rakes and Forks")

Rammers, Sand

Chicago Pneumatic Tool Co., New York.
Electric Hammer Syndicate, Louisville.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich.
Independent Pneumatic Tool Co., Chicago.

Rams, Hydraulic

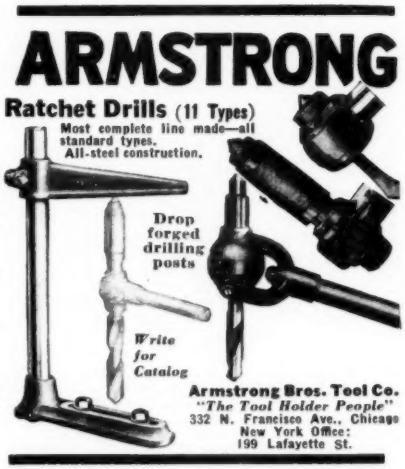
Blackhawk Mfg. Co., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.

Rasps

Atkins, E. C., and Co., Indianapolis, Ind.
Carson-Newton Co., Newark, N. J.
Cleveland File Co., The, Cleveland, O.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ford, M. A., Mfg. Co., Davenport, Ia. (Rotary)
Hayes File Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Simonds Saw and Steel Co., Fitchburg, Mass.

Ratchets and Ratchet Drills

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Cleveland Twist Drill Co., The, Cleveland.
Foote Gear Works, Inc., Cicero, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.



New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Adjustable

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bibb and Valve Seat

Alvord-Polk Tool Co., Millersburg, Pa.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Conant & Donelson Co., Conway, Mass.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Johnson, William, Inc., Newark, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.

Reamers, Bit Brace and Hand

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Conant & Donelson Co., Conway, Mass.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.

THE STANDARD TOOL CO.
CLEVELAND
STANDARD TOOL CO.
REAMERS
BRANCHES:
NEW YORK
CHICAGO
DETROIT

National Twist Drill & Tool Co., Detroit, Mich.
Nye Tool & Machine Works, The, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bridge and Boiler

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Burring

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.

Reamers, Car

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Center

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Chucking

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Cylinder

Barber-Colman Co., Rockford, Ill.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Reamers, Diamond

(See "Tools, Diamond Pointed")

Reamers, Electric

Alvord-Polk Tool Co., Millersburg, Pa.
Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Pratt & Whitney Co., Hartford, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Reamers, Expanding

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Chadwick & Trefethen, Portsmouth, N. H.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Expansion

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gammons-Holman Co., The, Manchester, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles, Calif.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Locomotive

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Chicago Pneumatic Tool Co., New York.
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Union Twist Drill Co., Athol, Mass.
Walworth Co., New York, N. Y.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Glenzer, J. C., Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers—Spiral Fluted, Rose Chucking, Rose Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Chadwick & Trefethen, Portsmouth, N. H. (Spiral fluted only)
Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.

Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Square

Alvord-Polk Tool Co., Millersburg, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Tuck Mfg. Co., Brockton, Mass.
Union Twist Drill Co., Athol, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Reamers, Taper and Taper Pin

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gammons-Holman Co., The, Manchester, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Reamers, Woodworking

Independent Pneumatic Tool Co., Chicago.

Reaming Machines

(See "Machines, Reaming")

Receivers, Air

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Baker-Hansen Mfg. Co., Alameda, Calif.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Perkins Marine Lamp Corp., Brooklyn.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago.

Receivers, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Carbondale Machine Corp., Harrison, N. J.

Receivers, Condensation

Dean Brothers Co., Indianapolis, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Nason Manufacturing Co., New York.
Sarco Co., Inc., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Receptacles, Refuse

(See "Cans or Receptacles, Refuse")

Recharges, Dry, Fire Extinguisher

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Hays Corp., The, Michigan City, Ind.
Leeds & Northrup Co., Philadelphia, Pa.
McNeill, T. W., Engineering Equipment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Permutit Co., The, New York, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Draft

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Hays Corp., The, Michigan City, Ind.
Mason Regulator Co., Boston, Mass.
Republic Flow Meters Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Electrical

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detex Watchclock Corp., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
National Dry Kiln Co., Indianapolis, Ind. (For humidity and temperature)
Uehling Instrument Co., Paterson, N. J.

Recorders, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

Recorders, Operation

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Thwing Instrument Co., Philadelphia, Pa.
Veeder-Root, Inc., Hartford, Conn.

Recorders, Revolution

(See "Counters, Revolution" and "Tachometers")

Recorders and Indicators, Specific Gravity

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Hays Corp., The, Michigan City, Ind.
Permutit Co., The, New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Recorders, Temperature

(See "Thermometers, Recording")

Recorders, Watchmen's

(See "Clocks, Watchmen's")

Recorders, Water Flow

Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Reducers, Fuse

Ideal Commutator Dresser Co., Sycamore, Ill.

Reducers, Hose

(See "Fittings, Hose")

Reducers, Pipe

(See "Fittings, Pipe")

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Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Transmission Corp., New York.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Cicero, Ill.
Horsburgh & Scott Co., The, Cleveland, O.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jeffrey Manufacturing Co, The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone-Hindley Gear Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Master Electric Co., Dayton, Ohio.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morse Chain Co., Ithaca, N. Y.
Ohio Forge & Machine Corp., Cleveland, O.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Smith, Winfield H., Inc., Springville, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Swayne-Robinson & Co., Richmond, Ind.

Reels, Belting

Reichel & Drews, Chicago, Ill.

Reels, Electric Extension

Appleton Electric Co., Chicago, Ill. (Spring driven)
Cincinnati Specialty Mfg. Co., Inc., The, Cincinnati, Ohio. (Automatic)
Maris Brothers, Inc., Philadelphia, Pa.

Reels, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
C-O-Two Fire Equipment Co., Newark, N.J.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Jiffy Fire Hose Rack Co., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wirt & Knox Co., Philadelphia, Pa. (Fire and garden)

Reels, Pay Out

Leach Co., Oshkosh, Wis.
Maris Brothers, Inc., Philadelphia, Pa.
Wittek Mfg. Co., Chicago, Ill.

Reels, Wire, Steel

American Pulley Co., The, Philadelphia.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Leach Co., Oshkosh, Wis.
Little, F. J., Machine Co., Chicago, Ill.
Newhall Chain Forge & Iron Co., New York.
Truscon Steel Co., Youngstown, Ohio.

Refacers, Valve, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Millers Falls Co., Greenfield, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electrical Tool Co., The, Towson, Md.

Refractories

(See "Cement, Fire Brick," "Cement, High Temperature," "Cement, Refractory," "Fire Clay," etc.)

Refrigeration Specialties

Aluminum Industries, Inc., Cincinnati, O.
American Blower Corp., Detroit, Mich.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Injector Co., Detroit, Mich.
Bassick Co., The, Bridgeport, Conn.
Bastian-Blessing Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Binks Mfg. Co., Chicago, Ill.

Brad Foote LINE

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HERRINGBONE--WORM and MOTORIZED

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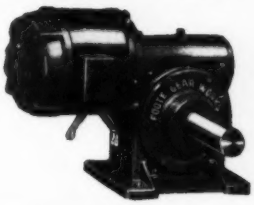

BRAD FOOTE Motorized Speed Reducers are made in Herringbone and Worm Gear Types—supplied with any desired motor. Herringbone in 83 ratios from ¼ H.P. to 475 H.P. Worm Type from ¼ H.P. to 7½ H. P. Single reduction—Ratios 8 to 1 up to 60 to 1. Double in larger ratios. Higher H.P. if desired.

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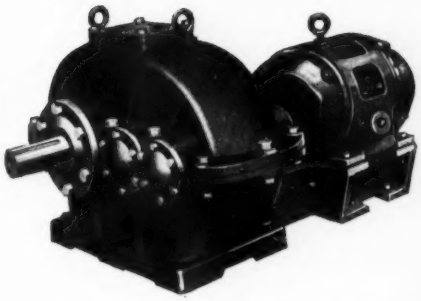
BRAD FOOTE Speed Reducers are made to accommodate all types of installation. Supplied with either A.C. or D.C. motor. Send data on your requirements.



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¼ Horsepower to 475 Horsepower

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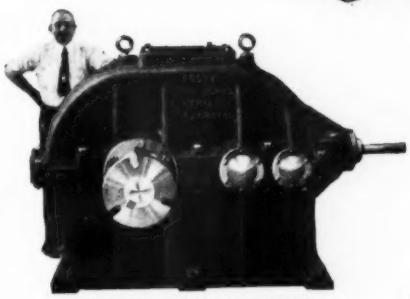

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Commonwealth Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Inc., Bridgeport, Conn.
Crane Packing Co., Chicago, Ill.
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Fisher Governor Co., Marshalltown, Iowa.
Geuder, Paeschke & Frey Co., Milwaukee.
Gilmer, L. H., Co., Philadelphia, Pa.
Greenlee Bros. & Co., Rockford, Ill.
Harrington Co., Philadelphia, Pa.
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Ingersoll-Rand Co., New York, N. Y.
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Johnson Bronze Co., New Castle, Pa.
Keasbey, Robert A., Co., New York, N. Y.
Kerotest Mfg. Co., Pittsburgh, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
Linde Air Products Co., New York, N. Y.
Link-Belt Co., Chicago, Ill.
Lupton's, David, Sons Co., Philadelphia.
Marathon Electric Mfg. Corp., Wausau, Wis.
Marsh, J. P., & Co., Chicago, Ill.
Mason-Neilan Regulator Co., Boston, Mass.
Morse Chain Co., Ithaca, N. Y.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
National Tube Co., Pittsburgh, Pa.
Norma-Hoffman Bearings Corp., Stamford, Conn.
North Bros. Mfg. Co., Philadelphia, Pa.
Oberdorfer, M. L., Brass Co., Syracuse.
Penberthy Injector Co., Detroit, Mich.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ready-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Steel Corp., Youngstown, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J.
Roper, George D., Corp., Rockford, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Saylor-Beall Mfg. Co., Detroit, Mich.
Scovill Mfg. Co., Waterbury, Conn.
Service Caster & Truck Co., Albion, Mich.
Snap-On-Tools, Inc., Kenosha, Wis.
Stanley Works, 176 Lake, New Britain, Conn.
Steel & Tubes, Inc. (Subsidiary of Republic Steel Corp.), Cleveland, Ohio. (Tubing)
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stevens-Walden, Inc., Worcester, Mass.
Sumet Corp., Buffalo, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Tube Turns, Inc., Louisville, Ky.
Unique Mfg. Co., Inc., Chicago, Ill.
Victor Mfg. & Gasket Co., Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Wagner Electric Corp., St. Louis, Mo.
Watson-Stillman Co., The, Roselle, N. J.
Wolverine Tube Co., Detroit, Mich.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yale & Towne Mfg. Co., Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

Regulators, Damper, for Power Boilers

Brown Instrument Co., Philadelphia, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Doolittle, L. G., Binghamton, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Richmond Hill, New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Watts Regulator Co., Lawrence, Mass.

Regulators, Draft

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Gorton Heating Corp., Crawford, N. Y.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Richmond Hill, New York, N. Y.
Parker-Kalon Corp., New York, N. Y.
Tillery's Little Janitor Clock Co., Newark, N. J.

Regulators, Controllers or Governors—Fan Engine

Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Parker-Kalon Corp., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Feed Water

Brown Instrument Co., Philadelphia, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Northern Instrument Co., Erie, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Regulators, Flow

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., Philadelphia, Pa.
Davis Regulator Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.

Regulators, Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Harris Calorific Co., The, Cleveland, Ohio.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lawler Water Feed and Damper Regulator Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Humidity

Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Foxboro Co., The, Foxboro, Mass.
Klipfel Manufacturing Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Regulators, Oil Burner

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

Regulators—Oxygen, Acetylene and Hydrogen

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pitsburgh, Pa.
Sight-Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Pressure, Air

Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Gardner-Denver Co., Quincy, Ill.
H. D. B. Corporation, Chicago, Ill.
Hannifin Mfg. Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Nunn Brass Works, Rochester, N. Y.
Paasche Airbrush Co., Chicago, Ill.
Powers Regulator Co., The, Chicago, Ill.
Saylor-Beall Mfg. Co., Detroit, Mich.
Schade Valve Mfg. Co., Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Pressure, Steam

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Pressure, Water

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powers Regulator Co., The, Chicago, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Pump

(See "Governors or Regulators, Pump")

Regulators, Stoker

Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Richmond Hill, New York, N. Y.

Regulators, Tank

Bastian-Blessing Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watts Regulator Co., Lawrence, Mass.

Regulators, Temperatuure

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C., Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Regulators, Temperature, Liquid

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C., Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Russell Electric Co., Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.

Regulators, Vacuum

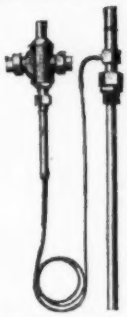
Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Taylor Instrument Companies, Rochester, N. Y.

Regulators, Water Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.

SARCO

Temperature Regulators



Sarco Temperature Regulator is operated by an extremely sensitive liquid and is instantly responsive to the slightest fluctuation in the temperature of atmosphere or liquids. It requires no external operating means, such as compressed air, water or electricity.

Sarco Regulators are substantially constructed. The valve is balanced and packless.

Suitable for steam, water, oil and gas, from 0° to 300° F, and can also be had in the "reverse acting" type, to open with rise of temperature.

A 6-ft. connecting tubing between thermostat and valve is furnished with regulator, but when needed, longer tubings are supplied at a slight additional cost.

Type TR-21 is designed for tank, heater and duct control, and has an adjustment range of 50° F.

Type KR-14 is designed for room and dry kiln control and has an adjustable range of 50° F.

Types KR-25 and TR-25 have a range of 100° F. The latter is designed for liquid, the former for room control. *Write for Catalog Z-52.*

SARCO CO., INC.
183 Madison Ave., New York, N. Y.
Branches in Principal Cities
SARCO CANADA LIMITED
FEDERAL BLDG., TORONTO, ONT.

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Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Justus Steam Trap Co., Napanoch, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonnell & Miller, Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Nason Manufacturing Co., New York.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Removers, Bushing

Keystone Reamer & Tool Co., Millersburg, Pa.
Snap-On Tools, Inc., Kenosha, Wis.

Removers, Rust

(See "Rust Preventives and Removers")

The "Index to Advertisers" will be found on Pages 18, 19 and 20

"ANCHOR" RERAILERS

Patented Mar. 25, 1924

The most widely used Car Replacer on industrial tracks in America. Patented locking cam prevents slipping. Rerails wheels from either or both sides at same time. Made in all sizes.

EDELBLUTE MANUFACTURING CO.
Reynoldsville, Penna.

Replacers, Car

Aldon Co., The, Chicago, Ill.
American Chain Co., Inc., Bridgeport, Conn.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

Replacers, Fuse

(See "Pullers and Replacers, Fuse")

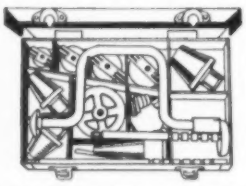
Resaws, Band and Circular

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Diamond Iron Works, Inc., Minneapolis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Reseating Tools, Valve and Bibb

Alvord-Polk Tool Co., Millersburg, Pa.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Conant & Donelson Co., Conway, Mass.
Cowles Tool Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Jay Tee Tool Sales Co., Cleveland, Ohio.
Jenkins Bros., New York, N. Y.
Johnson, William, Inc., Newark, N. J.
Keystone Reamer & Tool Co., Millersburg, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Powell, Wm., Co., The, Cincinnati, Ohio.
Skinner, M. B., Co., South Bend, Ind.
Snap-On Tools, Inc., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
U. S. Reamer & Tool Corp., Los Angeles.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

SKINNER VALVE & BIBB RESEATER



Don't junk leaky valves . . . reseat 'em. This handy tool reseats leaky valves in place . . . accurately . . . quickly. Takes all flat and taper seat globe valves ¼" to 3" . . . all bibbs, faucets ¼" to ¾". Leaves seat glass-smooth, level, absolutely tight. Two tools for price of one . . . 3 or 4 jobs pay for it. Write for prices!

M. B. SKINNER COMPANY, SOUTH BEND, IND.

Respirators and Resuscitating Devices

American LaFrance and Foamite Corp., Elmira, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodrich, B. F., Co., The, Akron, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Hygea Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Willson Products, Inc., Reading, Pa.

Respirators and Hoods Combined

(See "Hoods and Respirators Combined")

Restorers, Thread

(See "Thread Restorers")

Rests, Pipe

Armstrong Manufacturing Co., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.

Rests, Slide, for Lathes

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.

Retorts

(See "Crucibles and Retorts")

Riddles, Foundry

Newark Wire Cloth Co., Newark, N. J.
Tessmer Machine & Tool Co., Detroit.
Wickwire Spencer Steel Co., New York.

Rings and Links, Balata

(See "Links and Rings, Balata")

Rings, Expansion, Hose Coupling

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Watt's, John M., Sons, Philadelphia, Pa.

Rings, Packing, Felt

Booth Felt Co., Inc., Brooklyn, N. Y.
Field, R. B., & Co., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Watt's, John M., Sons, Philadelphia, Pa.

Rings, Pipe Hanging

Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Walworth Co., New York, N. Y.

Rings, Shafting, Leather

Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolton, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Moloney Belting Co., Chicago, Ill.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Rings and Wedges, Tool Post

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Williams, J. H., & Co., New York, N. Y.

Rivet Sets

(See "Sets, Rivet")

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RESPIRATORS
SAND BLAST MASKS
WELDING HELMETS

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Rock River Machine Co., Janesville, Wis.

Riveters, Electric

Independent Pneumatic Tool Co., Chicago.
Rock River Machine Co., Janesville, Wis.

Riveters, Hydraulic

Hannifin Manufacturing Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Millers Falls Co., Greenfield, Mass.

Riveters, Pneumatic

Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Hannifin Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.

Riveters, Stake

Rock River Machine Co., Janesville, Wis.

Rivets, Boiler and Structural

Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Champion Rivet Co., The, Cleveland, O.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.

Rivets and Burrs, Brass and Copper

American Brass Co., The American Metal Hose Branch, Waterbury, Conn.
Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Millidale, Conn.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Massachusetts Machine Shop, Inc., Boston, Mass.
Multi-Seal Manufacturing Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
Wrought Washer Mfg. Co., Milwaukee.

Rivets, Hame

Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Steel or Iron, Small

Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Boss Bolt & Nut Co., Chicago, Ill.
Champion Rivet Co., The, Cleveland, Ohio.
Clark Bros. Bolt Co., Milldale, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Tinners'

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Chase Brass & Copper Co., Waterbury, Conn.
Everitt Co., The, Boston, Mass.
Lamson & Sessions Co., The, Cleveland.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.

Rivets, Tong

Atlas Bolt & Screw Co., The, Cleveland.
Heller Brothers Co., Newark, N. J.
Pittsburgh Screw & Bolt Corp., Pittsburgh.

Rivets, Tubular and Split

Atlas Tack Corp., Fairhaven, Mass. (Tubular only)
Chase Brass & Copper Co., Waterbury, Conn.
Continental Screw Co., New Bedford, Mass.
Crescent Belt Fastener Co., New York.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Johns-Manville, New York, N. Y.
Manufacturers' Belt Hook Co., Chicago.
Miley, L. J., Co., Inc., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Standard Belt Fastener Co., The, Unionville, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rock Wool

(See "Wool, Mineral")

Rod Ends

(See "Ends, Rod")

Rods — Brass, Bronze and Copper

(See "Brass Rods," "Bronze Rods" and "Copper Rods")

Rods, Drill

Crucible Steel Co. of America, New York, N. Y.
Frasse, Peter A., & Co., Inc., New York.
Ingersoll-Rand Co., New York, N. Y.
Kidd Drawn Steel Co., Aliquippa, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Flue Cleaner

Billings & Spencer Co., The, Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Rods, Hydrant

M & H Valve & Fittings Co., Anniston, Ala.

Rods, Pipe

Mark, Clayton, & Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Piston

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Crucible Steel Co. of America, New York, N. Y.
Frederick Iron & Steel Co., The, Frederick, Md.
Jones & Laughlin Steel Corp., Pittsburgh.
Leard, William, Co., Inc., The, New Brighton, Pa.
Ohio Forge & Machine Corp., Cleveland, O.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Pump, Deep Well

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Crucible Steel Co. of America, New York, N. Y.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Mark, Clayton, & Co., Chicago, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.

Rods, Sewer Cleaning

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Newhall Chain Forge & Iron Co., New York.
Rapid Spring Co., The, Pittsburgh, Pa.
Ruleta Co., Inc., The, New York, N. Y. (Jewelers')

Rods, Stove

American Screw Co., Providence, R. I.
Continental Screw Co., New Bedford, Mass.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.

Rods, Threaded

Acme Machine Products Co., Muncie, Ind.
American Car and Foundry Co., New York.
Bethlehem Steel Co., Bethlehem, Pa.
Conco Engineering Works, Mendota, Ill.
Crucible Steel Co. of America, New York, N. Y.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Star Expansion Bolt Co., New York, N. Y.

Rods, Tie

American Car and Foundry Co., New York.
American Steel & Wire Co., Chicago, Ill.
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Conco Engineering Works, Mendota, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Newhall Chain Forge & Iron Co., New York.
Ohio Forge & Machine Corp., Cleveland, O.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester.
Upson-Walton Co., The, Cleveland, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Wire, Steel

American Chain Co., Inc., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Crucible Steel Co. of America, New York, N. Y.
Jones & Laughlin Steel Corp., Pittsburgh.
National Screw & Mfg. Co., The, Cleveland.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
Union Drawn Steel Co. (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

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All Sizes
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Manufacturer

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(See "Wire and Rods, Welding")

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Dudgeon, Richard, Inc., New York, N. Y.
Key Co., East St. Louis, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Rollers, Lumber

Filer & Stowell Co., The, Milwaukee, Wis.
Leach Co., Oshkosh, Wis.
Lignum-Vitae Products Corp., Jersey City, N. J.
Stimmel Winch Co., Long Island City, N. Y.

Rollers, Pipe

Armstrong Manufacturing Co., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Rolls, Conveyor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Pulley Co., The, Philadelphia.
Buffalo Forge Co., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Lignum-Vitae Products Corp., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rolls, Pipe Hanger

Grabler Mfg. Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Rolls — Wood, Metal and Rubber

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Crushing, etc.)
Edwards Manufacturing Co., Inc., Cincinnati, Ohio. (Iron and steel)
Filer & Stowell Co., The, Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio.
Hudson-Sharp Machine Co., Green Bay, Wis. (Metal and rubber only)
Lignum-Vitae Products Corp., Jersey City, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mathews Conveyor Co., Ellwood City, Pa.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich. (Granite conveyor)
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Roofing, Asphalt

Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Carey, Philip, Co., The, Lockland, Ohio.
Flexrock Co., Philadelphia, Pa.
Flintkote Co., The, Boston, Mass.

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Marline
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Drilling Crackers
Bull Ropes
Spinning Lines
Sand Lines

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Lehon Co., The, Chicago, Ill.
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National Manufacturing Corp., Tonawanda, N. Y.
Paraffine Companies, Inc., The, San Francisco, Calif.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Perolin Co. of America, The, Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Wills Products Co., The, New York, N. Y.

Roofing, Miscellaneous

Barber Asphalt Co., The, Philadelphia, Pa.
Barrett Co., The, New York, N. Y.
Blaw-Knox Co., Pittsburgh, Pa. (Sheathing)
Carey, Philip, Co., The, Lockland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Edwards Mfg. Co., The, Cincinnati, Ohio. (Iron and steel)
Johns-Manville, New York, N. Y. (Asbestos, cork, etc.)
Keasbey & Mattison Co., Ambler, Pa. (Asbestos)
Littleford Bros., Cincinnati, Ohio.
National Asbestos Mfg. Co., Jersey City, N. J. (Asbestos)
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y. (Zinc)
Paraffine Companies, Inc., The, San Francisco, Calif.
Republic Steel Corp., Cleveland, Ohio. (Black, galvanized and painted steel)
Ruberoid Co., The, New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio. (Steel decking, asbestos covered)

Rope, Cotton

Hettrick Manufacturing Co., The, Toledo, Ohio.
Lambeth Rope Corp., New Bedford, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Rauschenberger, John, Co., Milwaukee, Wis.
Samson Cordage Works, Boston, Mass. (Braided)

Rope, Jute

American Mfg. Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.

Rope, Manila

Allis-Chalmers Manufacturing Co., West Allis, Wis.
All States Roofers Equipment & Material Co., Chicago, Ill.
American Manufacturing Co., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.
Rauschenberger, John, Co., Milwaukee.
Rochester Ropes, Inc., Jamaica, N. Y.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, O.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rope, Marline Covered

American Steel & Wire Co., Chicago, Ill.
Columbian Rope Co., Auburn, N. Y.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Rauschenberger, John, Co., Milwaukee.
Rochester Ropes, Inc., Jamaica, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Tool Co., New York, N. Y.
Wire Rope Corporation of America, New Haven, Conn.

Rope, Rawhide

Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Moloney Belting Co., Chicago, Ill.
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Established 1871

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Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wall Rope Works, Inc., New York, N. Y.

Rope, Transmission

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

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Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Pacific Wire Rope Co., Los Angeles, Cal.
Rochester Ropes, Inc., Jamaica, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Union Wire Rope Corp., Kansas City, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.
Wire Rope Corp. of America, New Haven, Conn.
Wire Rope Mfg. & Equipment Co., Seattle, Wash.

Ropes, Tow

American Manufacturing Co., Brooklyn, N. Y.
American Steel & Wire Co., Chicago.
Broderick & Bascom Rope Co., St. Louis.
Buffalo Wire Works Co., Inc., Buffalo.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Rauschenberger, John, Co., Milwaukee.
Roebling's, John A., Sons Co., Trenton, N. J.
Samson Cordage Works, Boston, Mass.
Wall Rope Works, Inc., New York, N. Y.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.

Rounders or Jointers, Saw Guide

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Routers, Portable

Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio. (Electric)
Hermance Machine Co., Williamsport, Pa. (Stair)
Onsrud Machine Works, Inc., Chicago, Ill.
Orum, S. R. M., Inc., Philadelphia, Pa. (Electric)
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill. (Electric)
Wappat, Inc., Pittsburgh, Pa. (Electric)

Routers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Calladay Machine Works, Philadelphia.
Disston, Henry, & Son, Inc., Tacony, Philadelphia, Pa.

Rubber, Plastic and Liquid

Glover, Manson, Stoughton, Mass.
Self-Vulcanizing Rubber Co., Inc., Chicago.

Rubbers, Packer and Swab

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Watt's Sons, John M., Philadelphia, Pa.

Rubbing Machines, Flexible Shaft

(See "Machines, Rubbing, Flexible Shaft")

Rules, Board and Log

Lufkin Rule Co., The, Saginaw, Mich.
Master Rule Mfg. Co., Inc., New York, N. Y.

Rules, Folding

Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The Saginaw, Mich.
Master Rule Mfg. Co., Inc., New York.
Stanley Rule & Level Plant, The, New Britain, Conn.

Rules, Slide

Brown & Sharpe Mfg. Co., Providence, R. I.
Gilson Slide Rule Co., Stuart, Fla.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Master Rule Mfg. Co., Inc., New York.

Rules, Steel

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Snap-On Tools, Inc., Kenosha, Wis.

Runners, Joint

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Johnson, William, Inc., Newark, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Mueller Co., Decatur, Ill.

Rust Preventives and Removers

Babbitt Steam Specialty Co., New Bedford, Mass.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Goodrich, B. F., Co., The, Akron, Ohio.
Hollow Center Packing Co., The, Cleveland, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
Leiman Bros., Inc., Newark, N. J.
Menaugh & Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Oakite Products, Inc., New York, N. Y.
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Superior Flake Graphite Co., Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.
Whiting Leather & Belting Co., Long Island City, N. Y.
Wilbur & Williams Co., The, Boston, Mass.

Saddles, Pipe

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
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Mueller Co., Decatur, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skinner, M. B., Co., South Bend, Ind.
Taylor Forge & Pipe Works, Chicago, Ill.
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(See "Guards and Safety Appliances, Machinery")

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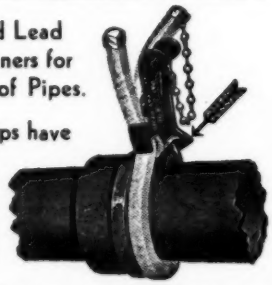

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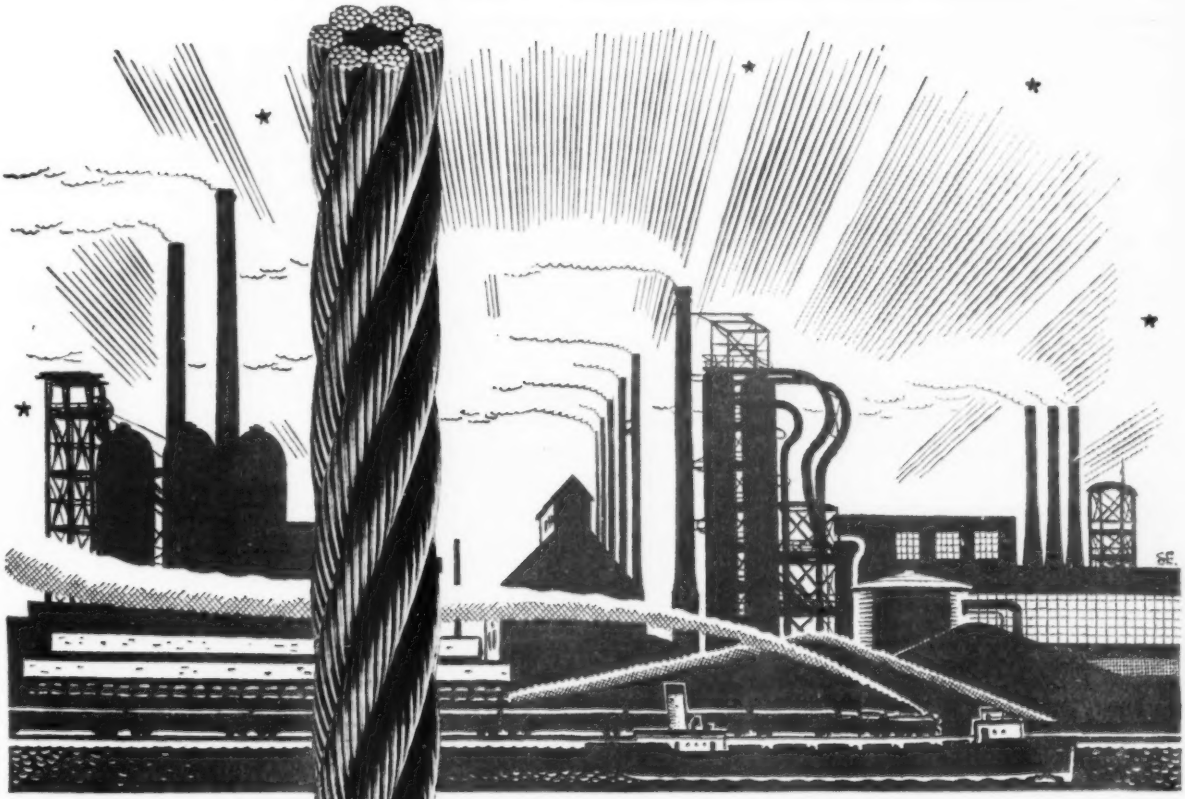

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Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
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(See "Ladders," "Shoes," "Gloves," "Goggles," "Leggings," "Caps," etc.)

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Holcomb Safety Garment Co., Chicago, Ill.
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Hauck Manufacturing Co., Brooklyn, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Littleford Bros., Cincinnati, Ohio.

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Dunton, M. W., Co., The, Providence, R. I.
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McGill Manufacturing Co., Valparaiso, Ind.

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Dallett Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Leiman Bros., Inc., Newark, N. J.
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Pittsburgh Crushed Steel Co., Pittsburgh. (Abrasives)
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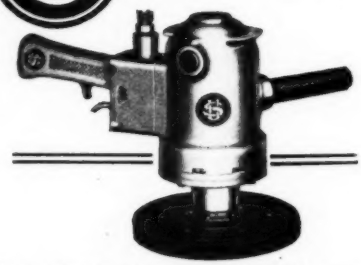

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Leach Co., Oshkosh, Wis.
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Knight Mfg. Co., The, Cuyahoga Falls, O.
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Sawing Machines, Band
(See "Machines, Band Saw")

Sawing Machines, Radial
(See "Machines, Sawing, Radial")

Sawing Outfits, Cordwood
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Nelson Bros. Co., Saginaw, Mich.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Back
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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Band (Machine)
(See "Machines, Band Saw")

Saws, Band, Metal Cutting (Blades)
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Lippert, E. T., Saw Co., Pittsburgh, Pa.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Peerless Machine Co., Racine, Wis.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Victor Saw Works, Inc., Middletown, N. Y.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Band, Narrow

American Saw & Mfg. Co., Springfield, Mass.
Atkins, E. C., and Co., Indianapolis, Ind.
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Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
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Holcomb, A. L., Co., Grand Rapids, Mich.
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Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
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Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
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Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
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Walls Sales Corp., New York, N. Y.

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Chattanooga Saw Works, Chattanooga, Tenn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.

Saws, Bench

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Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio. (Tilting arbor)
Walls Sales Corp., New York, N. Y.
Wappat, Inc., Pittsburgh, Pa.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Buck

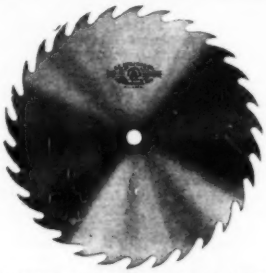
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Circular, Metal Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice, W. B. & J. E., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Holcomb A. L., Co., Grand Rapids, Mich.
Ideal Commutator Dresser Co., Sycamore, Ill. (Also Mica saws)
Illinois Tool Works, Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
National Twist Drill & Tool Co., Detroit.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Sandvik Saw & Tool Corp., Minneapolis, Minn.

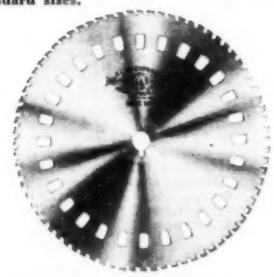
ATKINS SILVER STEEL SAWS

"The Finest on Earth"



ATKINS CIRCULAR SAWS

For Wood—SILVER STEEL. Made in rip, cut-off and combination patterns, dual ground, hollow ground and flat ground. All standard sizes.



For Metal—Last longer and cut more smoothly. All standard diameters, thicknesses, holes and numbers of teeth.

ATKINS NARROW BAND SAWS

For Wood—SILVER STEEL. All widths, gauges and points for re-sawing and scroll sawing.

For Metal—Alloy steel, Flexible back, tempered edge blades; also All-Hard, spring temper fast speed blades. Milled teeth and hard edges.

ATKINS CROSS CUT SAWS

Atkins makes a SILVER STEEL, "Segment Ground" Blue End Cross cut saw for every purpose. Sharp teeth with deep raker gullets.

ATKINS GRINDING WHEELS

Acrolite—For steel and all high tensile strength materials.

Ferrolite—For cast iron and low tensile strength materials.

ATKINS FILES

SILVER STEEL. Made in all standard classifications for every filing job.

E. C. ATKINS AND COMPANY
INDIANAPOLIS, INDIANA
BRANCHES: ATLANTA, GA. CHICAGO, ILL. MEMPHIS, TENN. NEW ORLEANS, LA. PORTLAND, ORE. NEW YORK, N. Y. KLAMATH FALLS, ORE. SAN FRANCISCO, CALIF. SEATTLE, WASH. PARIS, FRANCE

SIMONDS SAWS

SIMONDS Saw and Steel Company Fitchburg, Mass.

Circular and Band Saws of all kinds for cutting wood or metal.

Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Thurston Mfg. Co., Providence, R. I.
Wood, H. C., Machine Works, San Francisco, Cal.

Saws, Circular, Woodcutting

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Boice, W. B. & J. E., Toledo, Ohio.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Curtis Pneumatic Machinery Co., St. Louis.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Compass and Keyhole

Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

Saws, Concave

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons., Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., The, Pittsburgh.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.
Wappat, Inc., Pittsburgh, Pa.

Saws, Coping

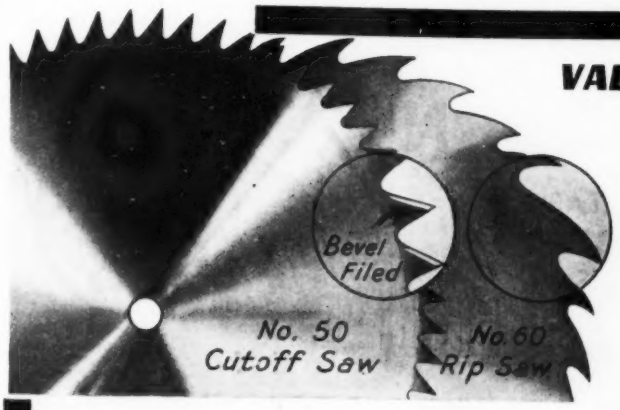
Atkins, E. C., and Co., Indianapolis, Ind.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Millers Falls Co., Greenfield, Mass.
Ruleta Co., Inc., New York, N. Y.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Washburn Co., The, Worcester, Mass.

Saws, Cut-Off

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Construction Machinery Co., Waterloo, Ia.
Colladay Machine Works, Philadelphia, Pa.
Curtis Pneumatic Machinery Co., St. Louis.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill. (Wood)
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.
United States Machine Co., Williamsport, Pa.
Wappat, Inc., Pittsburgh, Pa.
Wells Manufacturing Corp., Three Rivers, Mich.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Drag

Atkins, E. C., and Co., Indianapolis, Ind.
Clopp, Geo. B., Iron Works, Philadelphia.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.



VALUE IN SAWS

That Strikes Home to Every Saw Man

These Ohlen-Bishop Factory Brand Saws are of oil tempered special analysis steel. Properly tensioned by expert saw makers for *high speed production*. Extra high finish, bevel filed ready for fast cutting.

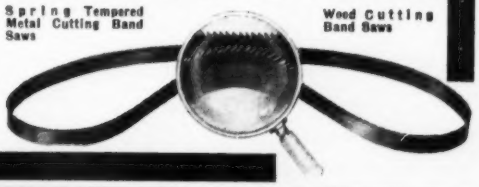
Send for complete specifications and prices to appreciate the extra value and profit Ohlen-Bishop offers you.

OHLEN-BISHOP SAWS

COLUMBUS, OHIO

Spring Tempered Metal Cutting Band Saws

Wood Cutting Band Saws



REMEMBER!

Ohlen-Bishop Chromsaws are sold only through distributors.

Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Saw Mill Machinery Co., Erie, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Electric, Portable and Stationary

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower and Forge Co., Lancaster, Pa.
Construction Machinery Co., Waterloo, Ia.
Delta Mfg. Co., Milwaukee, Wis.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Division, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Wells Manufacturing Corp., Three Rivers, Mich. (Electric butcher saws)
Wood, H. C., Machine Works, San Francisco, Cal.

Saws, Electricians'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Gang

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.

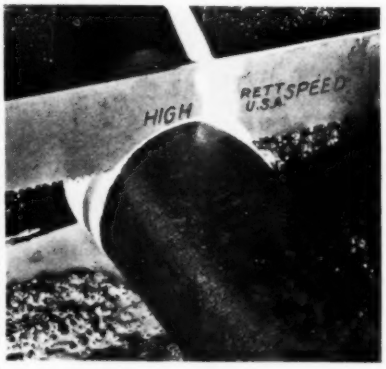
Saws, Grooving

Atkins, E. C., and Co., Indianapolis, Ind.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mall Tool Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

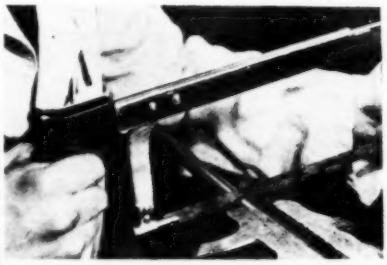
Saws, Hack (Blades)

American Saw & Mfg. Co., Springfield, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.

(Continued on page 239)



The name STARRETT on a hacksaw blade means the same thing it does on a tool---the very finest value that you can offer.



Starrett Catalog No. 25 "EG" describes the complete line of Starrett blades for hacksaw machines and hand frames. Do you need extra copies?

THE L. S. STARRETT CO.

World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy

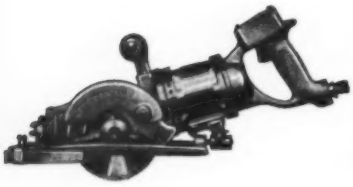
ATHOL, MASS., U. S. A.

Sell Starrett Hacksaws

6570

VAN DORN

PORTABLE ELECTRIC SAWS



6", 8" & 10" Sizes

Adjustable for depth and angle of cut

The VAN DORN ELECTRIC TOOL CO.
TOWSON, MD.

positively unbreakable!

only MARVEL High-Speed-Edge HACK SAW BLADES

can be both "High-Speed" and Unbreakable

No other blade can have a genuine high speed steel cutting edge and at the same time be **positively unbreakable.** No other high speed blade can offer: "greater feed pressures" and "higher running speeds" with absolute safety. This means that no other blade can give as many cuts per hour nor as many cuts per dollar. Sell shatter-proof MARVEL High-Speed-Edge Blades for every power saw and guarantee uninterrupted service **at capacity**—maximum production from every machine. Sell the blades you'd buy—MARVEL High-Speed-Edge.

Write for Catalog

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., CHICAGO

WHALE

HACK SAW BLADES

A complete line of power and hand blades for all types of metal cutting.

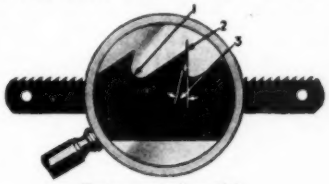
Made of tungsten high speed steel for the most difficult cutting jobs.

Made of Molybdenum High Speed Steel. Resist wear—Economical to use.

Made from tungsten alloy steel. Whale Tungsten Blades are furnished in Spring Temper, Flexible and All Hard types.

THE WHALE UNDERCUT TOOTH.

It cuts under and lifts out the steel.



1. Large round gullet.
2. Keen, sharp edge.
3. Undercut tooth.

The Whale Undercut Tooth represents an important improvement in making hack saw blades. Machines for cutting these teeth are covered by patent number 1,932,223.

The Undercut Tooth Cuts Like a Milling Cutter

THE FORSBERG MFG. CO.
Bridgeport, Conn., U. S. A.

Saws, Hack (Blades)

(Continued from page 238)

Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich.
Clemson Bros., Middletown, N. Y.
Diamond Saw & Stamping Works, Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.

(Continued on page 240)

Mill Supplies is the Only Magazine Published for Industrial Distributors

ATKINS SILVER STEEL SAWS

"The *Original* High Grade Blade"

BLUE END HACKSAW BLADES CUT MORE METAL THAN ANY OTHERS

•

We also make a fine line of AAA All-Hard Hand and Power Blades and Non-Breakable Hand Blades. Prices on application.

POWER BLADES—

Stock No.	Length Inches	Width Inches	Thickness Inches	Teeth per Inch	Weight per Gross —lbs.	Price per Gross
			RAKER SET			
414	14	1¼	.065	4	46	$252.00
417	17	1¼	.065	4	56	306.00
418	18	1¼	.065	4	59	324.00
421	21	1½	.065	4	84	453.60
			RAKER SET			
612	12	1	.065	6	34	172.80
614	14	1	.065	6	39	201.60
614P	14	1¼	.065	6	47	252.00
617	17	1¼	.065	6	57	306.00
617P	17	1	.065	6	45½	244.80
618	18	1¼	.065	6	61	324.00
621	21	1½	.065	6	87	453.60
624	24	1½	.065	6	100	518.40
1012	12	1	.065	10	34	172.80
1014	14	1	.065	10	39	201.60
1014P	14	1¼	.065	10	47½	252.00
1017	17	1	.065	10	47	244.80
1017P	17	1¼	.065	10	58	306.00
1018	18	1	.065	10	51	259.20
1018P	18	1¼	.065	10	63	324.00
1021	21	1½	.065	10	87	453.60
1024	24	1½	.065	10	100	518.40
1412	12	1	.049	14	25	172.80
1414	14	1	.049	14	29	201.60
1417	17	1	.049	14	35	244.80

EXTRA HEAVY POWER BLADES—

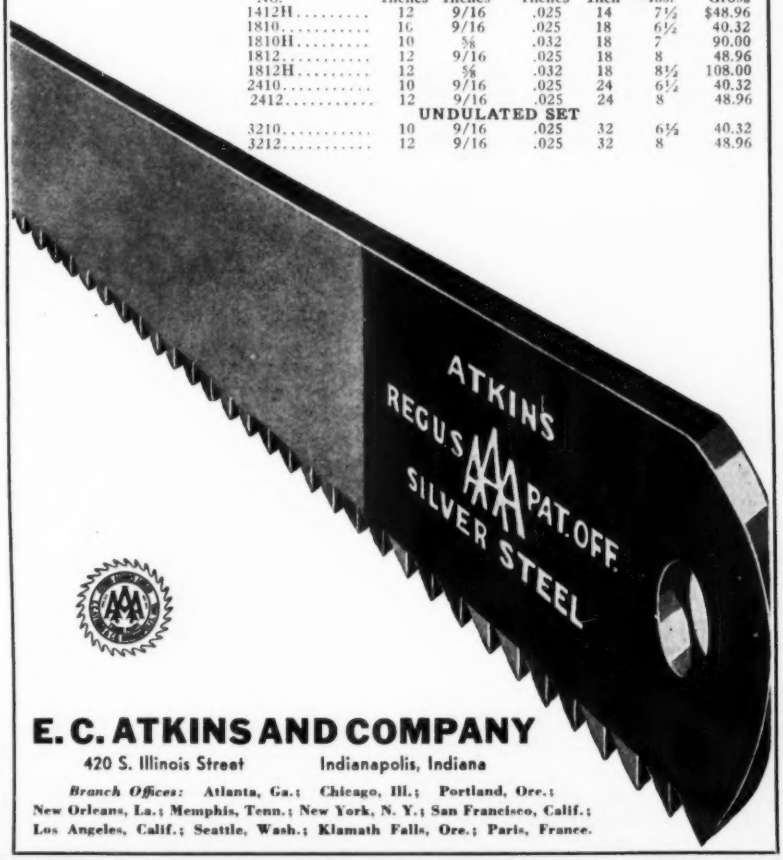
These blades are for use in new heavy duty machines only.

Stock No.	Length Inches	Width Inches	Thickness Inches	Teeth per Inch	Weight Each	Price per Gross
4718	18	1½	.072	4	8 oz.	$427.68
4721	21	2	.072	4	14 oz.	665.28
4724	24	2	.072	4	1 lb.	760.32
6718	18	1½	.072	6	8 oz.	427.68
6721	21	2	.072	6	14 oz.	665.28
6724	24	2	.072	6	1 lb.	760.32

HAND BLADES—

Made of the same high grade saw steel as Atkins SILVER STEEL Power Blades—Atkins exclusive formula. More economical. They will increase production, lower cost and save money.

Stock No.	Length Inches	Width Inches	Thickness Inches	Teeth per Inch	Weight per Gross —lbs.	Price per Gross
			RAKER SET			
1412H	12	9/16	.025	14	7½	$48.96
1810	16	9/16	.025	18	6½	40.32
1810H	10	⅝	.032	18	7	90.00
1812	12	9/16	.025	18	8	48.96
1812H	12	⅝	.032	18	8½	108.00
2410	10	9/16	.025	24	6½	40.32
2412	12	9/16	.025	24	8	48.96
			UNDULATED SET			
3210	10	9/16	.025	32	6½	40.32
3212	12	9/16	.025	32	8	48.96



E. C. ATKINS AND COMPANY

420 S. Illinois Street Indianapolis, Indiana

Branch Offices: Atlanta, Ga.; Chicago, Ill.; Portland, Ore.; New Orleans, La.; Memphis, Tenn.; New York, N. Y.; San Francisco, Calif.; Los Angeles, Calif.; Seattle, Wash.; Klamath Falls, Ore.; Paris, France.

Barnes Hack Saw Blades

The BARNES Line
Is COMPLETE!

RED ARROW BLADES. Hand and power types. Made of all high speed steel. Cutting tools without a peer.

SPECIAL UNBREAKABLE HAND BLADES. Offer all the advantages of both all-hard and flexible blades. Will not break in use.

ALL-HARD TUNGSTEN Hand and Power Blades. Have no superior for cutting qualities because of unusual heat treatment.

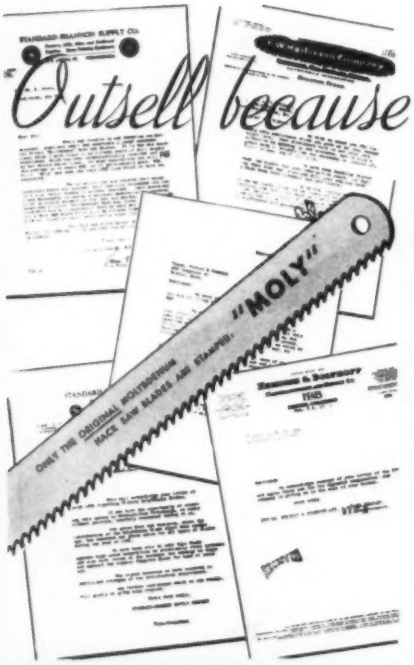
FLEXIBLE HAND BLADES. An excellent blade for general use. Individually file tested.

JUNIOR FRAMES AND BLADES. For use in garage, plumbing, industrial and electrical shops.

METAL CUTTING BAND SAW BLADES. Made in hard edge flexible back blade for cutting hard metals and spring tempered blade for soft metals.

W. O. BARNES CO., INC.
1297 Terminal Ave. Detroit, Mich.
and Leading Jobbers Everywhere

Outsell because they Outclass



"MOLY"
HACK SAW BLADES

need but a test to make a sale. Distributor after distributor writes enthusiastically. "Shining light of the depression" writes one. "4 mos. sales of 'Moly' beat last year's total for all blades" reports another. "Entire sales force enthusiastic" says a third.

Best of all, they sell for less than blades whose efficiency is no greater.

The Star line is complete — hand or power . . . "Moly" or Tungsten . . . Allhard, Flexible, Special Flexible. They are sold only by Mill Supply and Hardware Distributors.

5022

CLEMSON BROS., INC.
Middletown, N. Y.

Saws, Hack (Blades)

(Continued from page 239)

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
Millers Falls Co., Greenfield, Mass.
Napier Saw Works, Inc., Middletown, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.

(Continued on page 242)

Our facilities are open to you

in case you don't find the information you are after in this

Directory Edition

of

MILL SUPPLIES

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Just drop us a line and we will make every effort to secure for you the data you require

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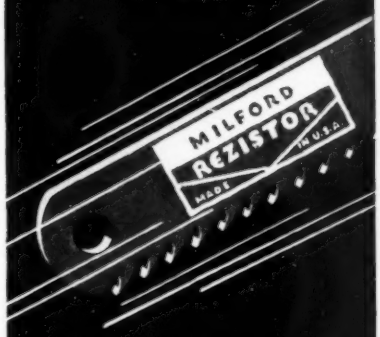
MILL SUPPLIES

"The Magazine of Industrial Distribution"

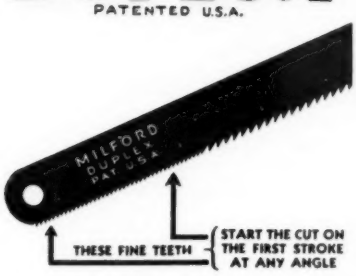
MILFORD REZISTOR



HIGH SPEED CUTTING

MILFORD DUPLEX

PATENTED U.S.A.



THE EASY STARTING HACK SAW BLADE

Note these SEVEN Outstanding Features

1. Starts cut at any angle.
2. Teeth will not catch in corners.
3. Starts quickly with a full cutting stroke.
4. Reduces cutting time.
5. No scraping to begin cut.
6. Will not slip off cutting line.
7. Distributes wear full length of blade.

THE HENRY G. THOMPSON & SON CO.
NEW HAVEN, CONN.

"LENOX"

"The Tools in the Plaid Box"

HACK SAW BLADES

"Lenox" All Hard Hand Blades

The "Lenox" All Hard Blade is the style usually selected for the most efficient production and service.

STANDARD LIST—ALL-HARD HAND BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 14 Teeth	18 Teeth	24 Teeth	32 Teeth	List per Gross
8	7/16	23	....	818	824	832	$ 8.00
10	1/2	23	1014	1018	1024	1032	10.00
12	1/2	23	1214	1218	1224	1232	12.00
12	9/16	23	1614	1618	1624	....	13.50

Flexible Hand Blades

The "Lenox" Flexible Blade is hardened on the teeth only, the back being left soft which prevents breakage. We recommend them particularly to plumbers, electricians, and garage mechanics. Because of their unbreakable quality and the abuse they will stand, many machine shops prefer them for use by unskilled workers or where awkward cutting positions are encountered.

STANDARD LIST—FLEXIBLE HAND BLADES

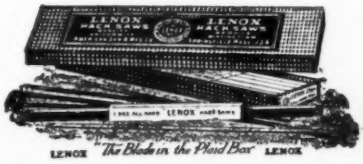
Length Inches	Width Inches	Gauge	CODE NUMBER 14 Teeth	18 Teeth	24 Teeth	32 Teeth	List per Gross
8	7/16	23	....	818F	824F	832F	$ 8.00
10	1/2	23	1014F	1018F	1024F	1032F	10.00
12	1/2	23	1214F	1218F	1224F	1232F	12.00
12	9/16	23	1614F	1618F	1624F	....	13.50

The length of all Hand Blades measures from center to center of holes.

"LENOX" SUPER-FLEX HACK SAW BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 14 Teeth	18 Teeth	24 Teeth	32 Teeth	List per Gross
8	7/16	23	....	818S	824S	832S	$12.00
10	1/2	23	1014S	1018S	1024S	1032S	15.00
12	1/2	23	1214S	1218S	1224S	1232S	18.00
12	9/16	23	1614S	1618S	1624S	1632S	24.00

In developing this blade we have retained all the advantages of both the All Hard and Flexible type of hand blade, and give you a blade that is rigid, will not stretch or buckle, teeth will not strip out, superior in cutting qualities and is still unbreakable.



STANDARD LIST—LIGHT POWER BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 14 Teeth	18 Teeth	List per Gross
12	5/8	21	2824	2828	$16.20
12	3/4	21	2424	2428	19.44
14	3/4	21	1424	....	22.68

Heavy Power Blades

"Lenox" Heavy Power Blades are built to fill every requirement of the modern high speed hack saw machine. For straight cutting, durability, and uniformity, they are unexcelled.

STANDARD LIST—HEAVY POWER BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 4 Teeth	6 Teeth	10 Teeth	14 Teeth	List per Gross
10	3/4	18	....	....	0490	....	$20.40
12	3/4	18	....	....	2490	2494	24.48
12	1	18	....	....	2190	2194	32.64
14	3/4	18	....	....	4490	4494	28.56
14	1	18	....	....	4190	4194	38.08
14	1 1/4	16	4454	4456	4450	....	58.80
17	1	18	....	....	7190	7194	46.24
17	1 1/4	16	7454	7456	7450	....	71.40
18	1 1/4	16	....	8456	8450	....	75.60
21	1 1/2	16	2254	2256	2250	....	105.84
24	1 1/2	16	....	4256	4250	....	120.96

HIGH SPEED STEEL Hack Saws

High Speed Steel "LENOX" Blades are the most economical hack saws to use on quantity production. Their durable toughness avoids breakage.

"LENOX" reduce costs per cut by eliminating delays for changing blades and permitting maximum saw speeds at all times.

STANDARD LIST HIGH SPEED HAND BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 14 Teeth	18 Teeth	24 Teeth	32 Teeth	List per Gross
10	9/16	23	....	018	024	032	$40.32
12	9/16	23	214	218	224	232	48.96

Blades can be furnished with Wavy Set if desired.

HIGH SPEED POWER BLADES

Length Inches	Width Inches	Gauge	CODE NUMBER 4 Teeth	6 Teeth	10 Teeth	14 Teeth	List per Gross
12	1	18	....	....	....	294	$172.80
12	1	16	....	256	250	....	172.80
14	1	18	....	....	....	494	201.60
14	1	16	....	456	450	....	201.60
14	1 1/4	16	464	466	460	....	252.00
17	1	18	....	....	....	794	244.80
17	1	16	....	756	750	....	244.80
17	1 1/4	16	764	766	760	....	306.00
18	1	16	....	....	850	....	259.20
18	1 1/4	16	864	866	860	....	324.00
18	1 1/2	15	874	876	....	....	427.68
21	1 1/2	16	174	176	170	....	453.60
21	2	15	184	186	....	....	665.28
24	1 1/2	16	....	476	470	....	518.40
24	2	15	484	486	....	....	760.32

AMERICAN SAW AND MFG. CO.

SPRINGFIELD, MASS., U. S. A.

UMI

BLU-MOL

MOLYBDENUM

THE OUTSTANDING HACK SAW ACHIEVEMENT FOCUSES DISTRIBUTOR ATTENTION ON THE MILLERS FALLS COMPLETE LINE OF TUNGSTEN MOLYBDENUM AND HIGH SPEED BLADES

If you're interested in stepping up hack saw sales—if you want a line that will win in competition—investigate MILLERS FALLS BLADES

MILLERS FALLS COMPANY

GREENFIELD, MASS.

Saws, Hack, Blades

(Continued from page 240)

Simonds Saw and Steel Co., Fitchburg, Mass.
Spartan Saw Works, Inc., Springfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Victor Saw Works, Inc., Middletown, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Hack (Machine)

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Clark, James, Jr., Electric Co., Louisville, Ky.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Racine Tool & Machine Co., Racine, Wis.
Robertson, W., Machine & Foundry Co., Buffalo, N. Y.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sandvik Saw & Tool Corp., Minneapolis.

Saws, Hack, Rotary

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Saws, Hand

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich. (Including butchers')
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hand, Electric

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Division, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Black & Decker Mfg. Co., Towson, Md.
Misener Mfg. Co., Inc., Syracuse, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.

BLACK & DECKER

HOLE SAWS

from 3/4" *up to* 4"

Fit 1/2" or larger electric drills for cutting clean, round holes in any material.

The **BLACK & DECKER Mfg. Co.**
TOWSON, MD.

SIMONDS

HACK SAW BLADES

"RED STREAK" HIGH SPEED STEEL
"RED END" TUNGSTEN STEEL

SIMONDS SAW AND STEEL CO. - - Fitchburg, Mass.

MARVEL

High-Speed Steel Teeth

HOLE SAWS

For large holes at low cost. Outcut, outlast all other hole saws. Handle a far greater range of work. Combine fast-cutting, long-lasting quality of High Speed Steel with an UNBREAKABLE, shatter-proof characteristic. Have sufficient strength for production work on electric drills and DRILL PRESSES—have sufficient set for deep drilling. Sizes from 3/4" to 4 1/2". These new type tools increase the capacity of any drill press.

Write for Circular

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., Chicago, U.S.A.

Saws, Ice

Acme-Detroit Saw Corp., Detroit, Mich.
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill. (Dry ice)
Wappat, Inc., Pittsburgh, Pa.

Saws, Jig, Electric

Beebe Bros., Seattle, Wash.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Ruleta Co., Inc., New York, N. Y.
Speedway Mfg. Co., Cicero, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Metal Slitting

Alvord-Polk Tool Co., Millersburg, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Illinois Tool Works, Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Mitre, Circular

Acme-Detroit Saw Corp., Detroit, Mich.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Milwaukee Electric Tool Corp., Milwaukee.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Saws, Mitre Box

Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Pneumatic

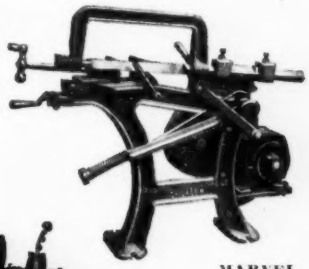
Ingersoll-Rand Co., New York, N. Y.
Reed-Prentice Corp., Worcester, Mass.

Saws, Rail

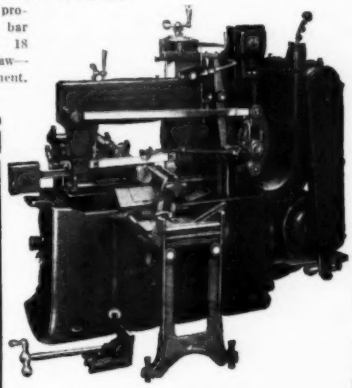
Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

MARVEL Hack Saws and Sawing Machines

The most complete, most advanced line of Hack Saws and Metal Sawing Machines. Each model outstanding with improved construction and operating features. The MARVEL Line includes sturdy low priced general purpose saws (80% in use are MARVELS), light and heavy-duty high speed saws—the fastest saws built; the metal cutting band saw; fast production saws with automatic bar push-up; and the new No. 18 giant hydraulic, roll-stroke saw—the last word in heavy equipment.



MARVEL No. 1



General Purpose Hack Saws
No. 1 4"x4"
No. 2 8"x8"

Light Duty High Speed
No. 4B 6"x6"

Heavy Duty High Speed
No. 6 6"x 6"
No. 9 10"x10"
No. 18 18"x18"

Metal-Cutting Band Saw
No. 8 18"x18"

Production Automatics
No. 6A 6"x 6"
No. 9A 10"x10"

MARVEL No. 6A

The MARVELS No. 6A and No. 9A introduce a new thing in cutting-off equipment—heavy-duty, full ball bearing, high speed saws with automatic bar push-up, production machine tools in capacities to 10"x10". Greatly increased pressure feeds and speeds have been made possible by the MARVEL High-Speed-Edge Blades (see ad under Hack Saw Blades).

MARVEL No. 8

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave.
CHICAGO, U.S.A.

Write for Bulletins

Saws, Rift

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R. & Co., Inc., Bronx, New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Rip, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Machinery Co., Chattanooga, Tenn.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa. (Chain and roll feed)
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Scroll

Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. F., & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Racine Tool & Machine Co., Racine, Wis.
Ruleta Co., Inc., New York, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Shingle

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Slotting

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill. (Commutator mica)
National Twist Drill & Tool Co., Detroit, Mich.
Portable Power Tool Co., Warsaw, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., The, Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Stone Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Crucible Steel Co. of America, New York, N. Y.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Electric Tool Division, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Swing, Cut-Off

Acme-Detroit Saw Corp., Detroit, Mich.
Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Bell Machine Co., The, Oshkosh, Wis.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Swett, Frank W., & Son, Chicago, Ill.
United States Machine Co., Williamsport, Pa.

Saws, Tube and Pipe Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Wells Manufacturing Corp., Three Rivers, Mich.

Saws, Veneer

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Scaffolding, Steel, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Portable Power Tool Corp., Warsaw, Ind.

Scaffolding, Wood, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati.

Scales

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks Co., The, New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Kron Scale Co., The, Bridgeport, Conn.
Merrick Scale Mfg. Co., Passaic, N. J.
Streeter-Amet Co., Chicago, Ill.
Toledo Scale Co., Toledo, Ohio.

Scoops

(See "Shovels, Scoops and Spades")

Scrapers, Bearing

American Swiss File & Tool Co., Elizabeth, N. J.
Anderson Bros. Mfg. Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Heller Bros. Co., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Millers Falls Co., Greenfield, Mass.
Mound Tool Co., St. Louis, Mo.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Tuck Mfg. Co., Brockton, Mass.
Vichek Tool Co., The, Cleveland, Ohio.

Scrapers, Belt

Atkins, E. C., and Co., Indianapolis, Ind.
Cook, H. N., Belting Co., San Francisco.
Graton & Knight Co., Worcester, Mass.
Link-Belt Co., Chicago, Ill.
Manufacturers' Belt Hook Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Scrapers, Box

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Philadelphia.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Scrapers, Cabinet Makers'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Scrapers, Carbon

Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Scrapers, Drag

American Hoist & Derrick Co., St. Paul.
American Steel Scraper Co., The, Sidney, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Sidney Steel Scraper Co., The, Sidney, O.
Stephens-Adamson Mfg. Co., Aurora Ill.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Scrapers, Flue

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Crowell, D. J., & Crowell, F. G., Buffalo.
Disston, Henry, & Sons. Inc., Tacony. Philadelphia, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Pierce, Wm. B., Co., The Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Worcester Brush & Scraper Co., Division Mason-Worcester Co., Worcester, Mass.

Scrapers, Pipe

Illinois Scully Steel Warehouse Co., Chicago, Ill.
Newark Brush & Scraper Co., Irvington, N. J.

Scrapers, Pneumatic

Dallett Co., The, Philadelphia, Pa.
Fairbanks Co., The, New York, N. Y.

Screen, Wire

American Brass Co., The, American Metal Hose Branch. Waterbury, Conn.
Cambridge Wire Cloth Co., Cambridge, Md.
Chase Brass & Copper Co., Waterbury, Conn.
Cleveland Wire Cloth & Mfg. Co., The, Cleveland, Ohio.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Screens, Revolving

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Harrington & King Perforating Co., Chicago, Ill.
The Jeffrey Manufacturing Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Vibrating

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Huron Industries, Inc., Alpena, Mich.
Jeffrey-Traylor Division of The Jeffrey Mfg. Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Wire, for Coal, Sand, Gravel, Etc.

Beaumont, R. H., Co., Philadelphia, Pa. (Coke screens)
Cambridge Wire Cloth Co., Cambridge, Md.
Huron Industries, Inc., Alpena, Mich.
Link-Belt Co., Chicago, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Manufacturers Equipment Co., The, Dayton, Ohio.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth, Newark, N. J.
Roebling's John A., Sons Co., Trenton, N. J.
Sackett, H. B., Screen & Chute Co., Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screens, Wire and Perforated Metal

Cambridge Wire Cloth Co., Cambridge, Md.
Harrington & King Perforating Co., The, Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screw Blanks

(See "Blanks, Nut and Screw")

Screw Machines

(See "Machines, Screw")

Screw (Cap) Threading Machines

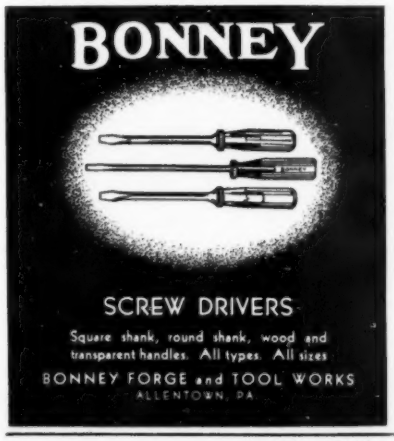
(See "Machines, Threading, Bolt and Cap Screw")

Screwdriver Bits

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Conn. Valley Mfg. Co., Centerbrook, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Irwin Auger Bit Co., Wilmington, Ohio.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electric Tool Division, New Britain, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stanley Works, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Screwdrivers

American Saw & Mfg. Co., Springfield, Mass.
American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Forged Steel Products Co., Newport, Pa.



Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hinsdale Mfg. Co., Chicago, Ill.
Irwin Augur Bit Co., Wilmington, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Ruleta Co., Inc., The, New York, N. Y. (Jewelers')
Sargent & Co., New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Roxbury, Boston.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

Screwdrivers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Irwin Augur Bit Co., Wilmington, Ohio.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electric Tool Division, New Britain, Conn.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Screwdrivers, Electricians'

American Swiss File & Tool Co., Elizabeth, N. J.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hinsdale Manufacturing Co., Chicago, Ill.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

Screwdrivers, Offset

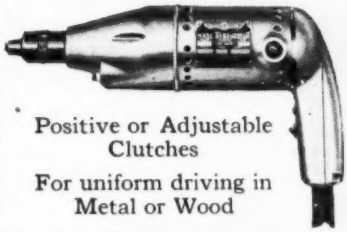
American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Strand, N. A., & Co., Chicago, Ill.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.

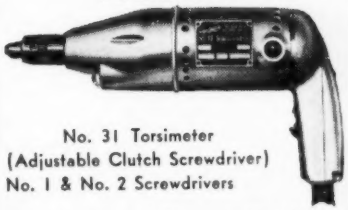
Screwdrivers, Power

(See "Machines, Screwdriving")

Screwdrivers, Ratchet

American Swiss File & Tool Co., Elizabeth, N. J.

BLACK & DECKER
Portable Electric Screw-Drivers

Positive or Adjustable Clutches
For uniform driving in Metal or Wood
The Black & Decker Mfg. Co.
TOWSON, MD.

VAN DORN
Portable Electric Screwdrivers

No. 31 Torsimeter
(Adjustable Clutch Screwdriver)
No. 1 & No. 2 Screwdrivers
The Van Dorn Electric Tool Co.
TOWSON, MD.

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Screwdrivers, Screw Holding

North Bros. Mfg. Co., Philadelphia, Pa.

Screwdrivers, Spiral

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

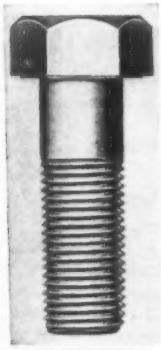
Screws, Bench

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
National Screw & Mfg. Co., The, Cleveland.
Peck, Stow & Wilcox Co., Southington, Conn.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent & Co., New Haven, Conn.

Screws, Brass

American Screw Co., Providence, R. I.
Atlantic Screw Works, Hartford, Conn.
Atlas Bolt & Screw Co., The, Cleveland.
Bridgeport Screw Co., Bridgeport, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Harper, H. M., Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Keeler Brass Co., Grand Rapids, Mich.
National Acme Co., The, Cleveland, Ohio.
National Lock Co., Rockford, Ill.
National Screw & Mfg. Co., The, Cleveland, Ohio.

OTTEMILLER



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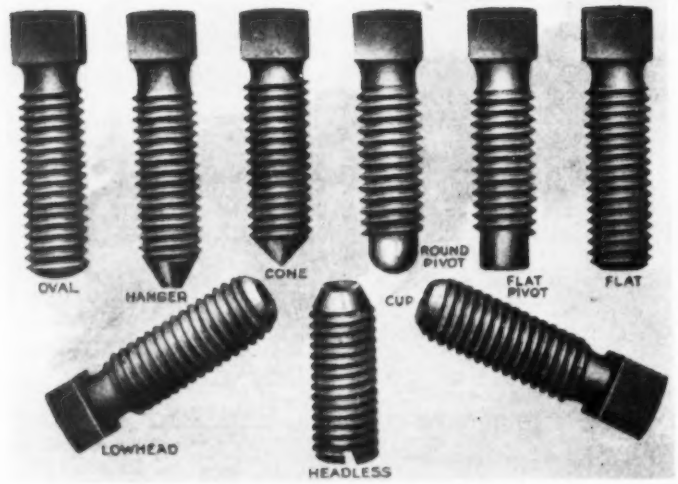
Our line is Complete—

Our line of milled screw machine products covers all requirements for cap and set screws, coupling bolts, milled studs, Dardelet thread screws, and upset head products. Complete stocks insure prompt delivery. Ottemiller products are milled from bar or rod on modern automatic multiple spindle screw machines—face, thread, and body are true because the screws are turned, threaded, and faced under head at the same time before being cut off.

Write for catalog and distributors' terms.

THE WM. H. OTTEMILLER CO.
YORK, PA.



HARPER

BOLTS NUTS SCREWS WASHERS FROM BRASS BRONZE COPPER EVERDUR MONEL TUBULAR

BRASS BRONZE EVERDUR

Cap and Set Screws
Machine Screws
Thumb Screws
Knurled Screws

Complete stock of all non-ferrous cap screws. Special sizes and types furnished promptly to order.

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Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford Ill.
Sargent & Co., New Haven, Conn.
Scovill Mfg. Co., Waterbury, Conn.
Southington Hardware Co., Southington, Conn.
Torrington Mfg. Co., The, Torrington, Conn.
United Screw & Bolt Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Whitney Screw Co., Nashua, N. H.

Screws—Cap, Machine and Set

Acme Machine Products Co., Muncie, Ind.
Allen Mfg. Co., The, Hartford, Conn.
American Cap & Set Screw Co., Waukegan, Ill.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Chandler Products Corp., Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland, Ohio. (Cap and set only)
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp), Cleveland, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Eagle Lock Co., Terryville, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.

(Continued on page 248)

HEXAGON CAP SCREWS
High Carbon Steel

Elco Cap Screws have perfectly centered heads, clean fast threads and chamfered points. Made from normalized high carbon steel for increased tensile strength. Large stocks include all sizes up to 1/2" diameter and 5" long for immediate shipment.

Brass Cap Screws Made to Order.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

MORE THAN 30 *Million* PIECES IN STOCK

Ready for immediate shipment to you today—we can fill your orders for Hexagon, Filister, and Flat Head cap screws; Square Head and Headless set screws, Studs, Carriage and Machine Bolts and Nuts—out of stock. Cap screws are full finished—and that means finished all over. Made by the Kaufman Process, *patented*, our products have much greater tensile strength, and far greater accuracy of threads, than ordinary commercial screws and bolts. Packed in strong cartons, with legible and attractive labels, Cleveland Cap Screw products are stocked in a full list of sizes, American Fine and Coarse threads. Ask for Catalog D and our current Discount schedules.

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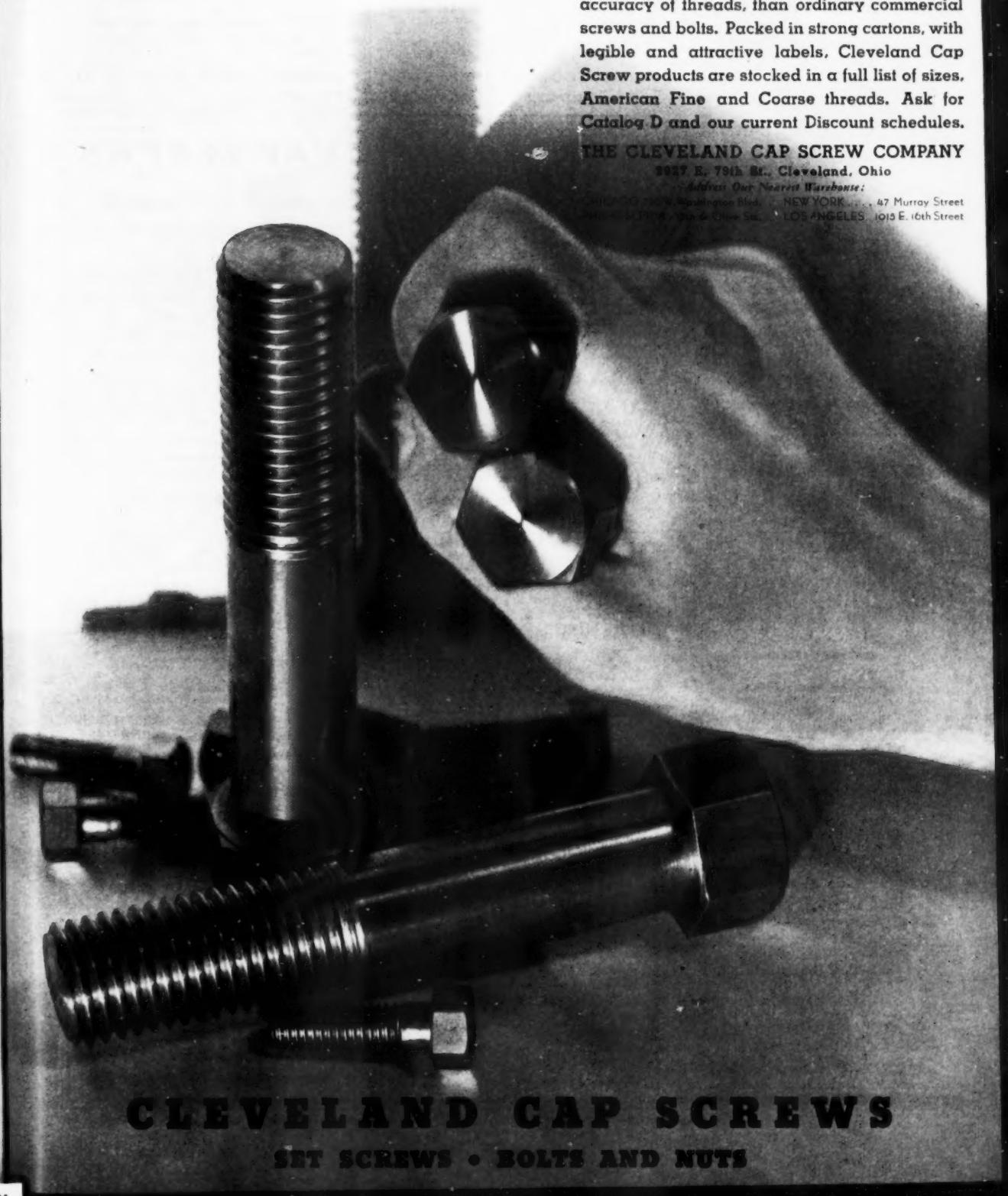


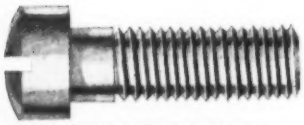
DISTRIBUTORS:

Try "ROCKFORD" for quick service on your requirements for cap and set screws

They are made to the highest standards of quality, accuracy and uniformity on modern machinery. (Our cap screws are made from .30 — .37 normalized steel.)

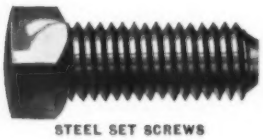
AMERICAN COARSE THREAD HEXAGON HEAD CAP SCREWS

AMERICAN FINE THREAD HEXAGON HEAD CAP SCREWS

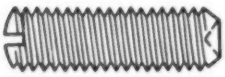


FILLISTER HEAD CAP SCREWS

FLAT HEAD CAP SCREWS



STEEL SET SCREWS



HEADLESS SET SCREWS

Let us also have your inquiries on Wood Screws, Lag Screws and Machine Screws (Brass and Steel; Flat, Round, Oval and Fillister Head).

Our cartons are extra strong.

Write for our complete catalog and our distributor discounts.

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

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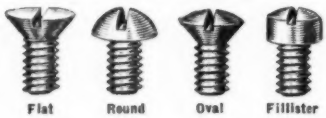
2501 Ninth Street,
Rockford, Ill.

MACHINE SCREWS

Steel and Brass — All Finishes



Flat Round Oval Fillister

Elco Machine Screws have accurate threads, perfect heads, centered slots and a clean finished appearance. The four standard style heads shown above are carried in stock in all standard listed sizes up to ¾" diameter and 3" long, both plain brass and steel or any desired finish.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

Screws—Cap, Machine and Set

(Continued from page 246)

Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Mid-West Screw Products Co., St. Louis.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Parker-Kalon Corp., New York, N. Y.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scovill Mfg. Co., Waterbury, Conn.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Coach and Lag

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Federal Screw Works, Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.

LAG SCREWS

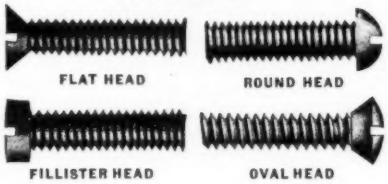
Steel and Brass

Elco Lag Screws have uniform square heads, sharp gimlet points, and clean threads. Made from higher carbon content steel, Elco Lag Screws have surplus strength. Sizes carried in stock range from ¼" to ½" diameter, and 1" to 6" in length.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

ROCKFORD MACHINE SCREWS

(Steel and Brass)



FLAT HEAD ROUND HEAD FILLISTER HEAD OVAL HEAD

Shipped quickly in extra strong cartons. Let us have your inquiry for distributor prices.

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CAP SCREWS

Standard
Special

THE MONARCH CAP SCREW & MFG. CO.
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COMPLETE STOCK OF

SCREWS — Cap Screws, Set Screws, Wood Screws, Machine Screws, Metal Tapping Screws

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NUTS — Machine Screw Nuts, Semi-Finished Nuts, Knurled Nuts, Cap Nuts, Wing Nuts, Brass Washers

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CHANDLER CAP SCREWS

A complete assortment, stocked for immediate shipment.

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Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Western Wire Products Co., St. Louis, Mo.

Screws, Collar

Armstrong Mfg. Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Drive

American Screw Co., Providence, R. I.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y. (Hardened metallic)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Cleveland, Ohio.
Rockford Screw Products Co., Rockford, Ill.

Screws, Hand

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.

Screws, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Columbus Bolt Works Co., The, Columbus, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.

Screws, Headless

Allen Mfg. Co., The, Hartford, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Chase Brass & Copper Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.

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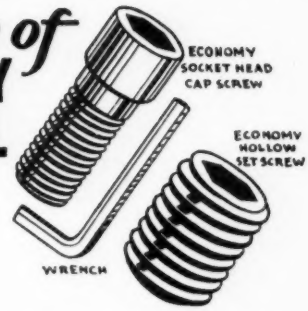

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Parker-Kalon Corp., New York, N. Y. (Including hollow headless)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Hook and Eye

California Screw Co., San Francisco, Calif.
Everitt Co., The, Boston, Mass.
National Screw & Mfg. Co., The, Cleveland, Ohio.

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For Use in Wood

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Drive Screws, like nails, can be speedily driven with a hammer but have far greater holding power. They are regularly made in steel only, and with the standard struck slot style of head. Cut slot and Slotless Drive Screws are made to order, usually requiring about 10 days or 2 weeks. Can also be furnished in brass if desired.

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Rochester Machine Screw Co., Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Screws, Jack

(See "Jackscrews")

Screws, Lag

(See "Screws, Coach and Lag")

Screws, Long

(See "Long Screws")

Screws, Machine

(See "Screws—Cap, Machine and Set")

Screws, Press

Adjustable Clamp Co., Chicago, Ill.
California Screw Co., San Francisco, Calif.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Rochester Machine Screw Co., Rochester.
Tally-Meter Co., Norwich, Conn.

Screws, Self-Tapping

Elco Tool & Screw Corp., Rockford, Ill.
Parker-Kalon Corp., New York, N. Y.
Shakeproof Lock Washer Co., Chicago, Ill.

Screws, Set and Cap

(See "Screws—Cap, Machine and Set")

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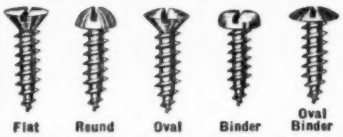

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California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Economy Machine Products Co., Chicago.
Hartford Machine Screw Co., Hartford.
Haskell, Wm., H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Holo-Krome Screw Corp., Bristol, Conn.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Screws, Sheet Metal

Elco Tool & Screw Corp., Rockford, Ill.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.

Screws, Shoulder, Socket Head

Allen Mfg. Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.
Economy Machine Products Co., Chicago.
Hartford Machine Screw Co., Hartford.
Holo-Krome Screw Corp., The, Bristol, Conn.
Parker-Kalon Corp., New York, N. Y.
Red Devil Manufacturing Co., Palatine, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

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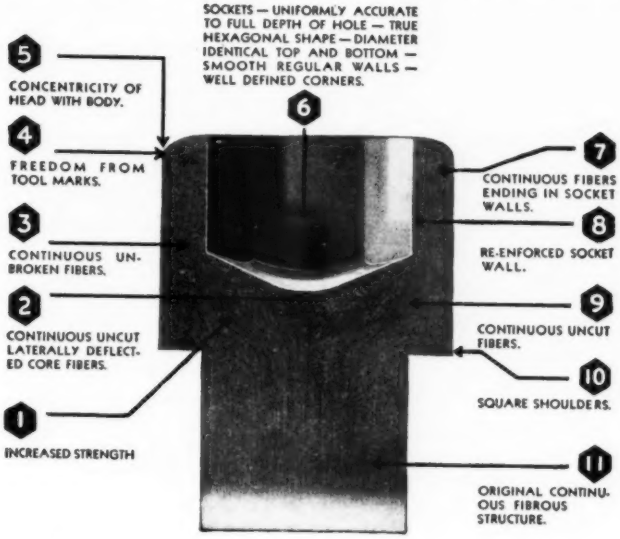

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Unfailing Performance "so vitally necessary" to today's high speed, volume production machinery and equipment is assured with FIBRO FORGED Screws. Holo-Krome's entirely new method builds into them the desirable features long sought for by all users of socketed screws.

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National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester.
United Screw & Bolt Corp., Cleveland, O.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Screws, Washer Head

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Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Continental Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Hubbell, Harvey, Inc., Bridgeport, Conn.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
United Screw & Bolt Corp., Cleveland.

Screws, Wood

American Screw Co., Providence, R. I.
Atlantic Screw Works, Hartford, Conn.
Bridgeport Screw Co., Bridgeport, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Continental Screw Co., New Bedford, Mass.
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Eagle Lock Co., Terryville, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
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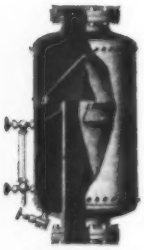

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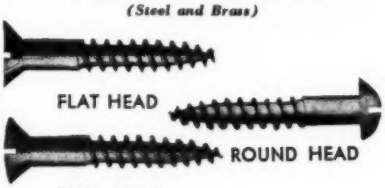

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Southington Hardware Co., Southington, Conn.
Washburn Co., The, Worcester, Mass.
Whitney Screw Co., Nashua, N. H.

Scribers

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Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
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Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

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Carbondale Machine Corp., Harrison, N. J.
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Milwaukee Steam Appliance Co., West Allis, Wis.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Simplex Spray Equipment Co., Chicago, Ill.
Swartwout Co., The, Cleveland, Ohio.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Separators, Oil

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Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burt Manufacturing Co., The, Akron, O.
Crane Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Steam Appliance Co., West Allis, Wis.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

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Crane Co., Chicago, Ill.
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Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
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Swartwout Co., The, Cleveland, Ohio.
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Wright-Austin Co., Detroit, Mich.

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Century Electric Co., St. Louis, Mo.
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Diehl Mfg. Co., Elizabethport, N. J.
Fairbanks, Morse & Co, Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hoppes Water Wheel Co., The, Springfield, Ohio.
Loane Engineering Co., Baltimore, Md.
Moore Steam Turbine Corp., Wellsville, N. Y.
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Chicago Rawhide Mfg. Co., The, Chicago.
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Field, R. B., & Co., Worcester, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
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Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.

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Brown & Sharpe Mfg. Co., Providence, R. I.
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Mayhew Steel Products, Inc., Shelburne Falls, Mass.

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Tuck Mfg. Co., Brockton, Mass.
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Gem Manufacturing Co., Pittsburgh, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.

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Bethlehem Steel Co., Bethlehem, Pa.
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Klein-Logan Co., The, Pittsburgh, Pa.
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Marchant, Geo. F., Co., Chicago, Ill.
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Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
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Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co. Tool Division, Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

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Chicago Pneumatic Tool Co., New York.
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Sets, Soldering

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Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products, Inc., The, New York.
Smith Welding Equipment Corp., Minneapolis, Minn.

Setters, Nut

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Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York, N. Y. (Electric)
Cincinnati Electrical Tool Co., Cincinnati.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio. (Electric, flexible shaft)
Independent Pneumatic Tool Co., Chicago, Ill. (Electric)
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Loane Engineering Co., Baltimore, Md.
Milwaukee Electric Tool Corp., Milwaukee, Wis. (Electric)
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O. (Electric, flexible shaft)
Stanley Electric Tool Division, New Britain, Conn. (Electric)
Strand, N. A., & Co., Chicago, Ill. (Flexible shaft)
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartz & White Mfg. Co., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Setters, Stud

Black & Decker Mfg. Co., The, Towson, Md.
Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Milwaukee Electric Tool Corp., Milwaukee.
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Carroll Chain Co., The, Columbus, Ohio.
Cleveland Chain & Mfg. Co., Cleveland.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The, Pittsburgh, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co., New York.
Sampson Tool Co., Inc., New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Shackles, Wire Rope

Boston & Lockport Block Co., East Boston, Mass.
Carroll Chain Co., The, Columbus, Ohio.
Hubbard & Co., Pittsburgh, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Shafting, Hollow, Transmission

(See "Quills or Hollow Shafts, Transmission")

"U-W" SHACKLES
DROP FORGED
CHAIN OR ANCHOR
ROUND OR SCREW PIN
SIZES ¼" to 2½"

"U-W" CONNECTING LINKS
DROP FORGED
FOR CHAIN CONNECTION OR REPAIRS
QUICK AND DEPENDABLE
SIZES 5/16" to 1⅞"

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"STEEL PRODUCTS"

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Established 1871

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Receiving MILL SUPPLIES regularly?

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Boston, Mass.—Hawkridge Bros. Co.
Bridgeport, Conn.—Hunter & Havens, Inc.
Buffalo, N. Y.—Root, Neal & Co.
Chicago, Ill.—Central Steel & Wire Co.
Cincinnati, Ohio—Jos. T. Ryerson & Son, Inc.
Cleveland, Ohio—The Bissett Steel Co.
Dayton, Ohio—Central Steel & Wire Co.
Detroit, Mich.—Central Steel & Wire Co.
Jersey City, N. J.—Jos. T. Ryerson & Son, Inc.
Los Angeles, Calif.—Link-Belt Co., Pacific Div.
Louisville, Ky.—Neill-LaVielle Supply Co.
Montreal, Can.—Drummond, McCall & Co., Ltd.
New York City, N. Y.—Bright Steel Corp.
Oakland, Calif.—Link-Belt Co., Pacific Div.
Philadelphia, Pa.—Charles Bond Co.
Pittsburgh, Pa.—McKee-Oliver, Inc.
Portland, Maine—W. L. Blake & Co.
Portland, Ore.—Link-Belt Co., Pacific Div.
San Francisco, Calif.—Link-Belt Co., Pacific Div.
Seattle, Wash.—Link-Belt Co., Pacific Div.
Toronto, Can.—Drummond, McCall & Co., Ltd.
Worcester, Mass.—Pratt & Inman

•***"Mirror Finish" Shafts*** are super-smooth, perfectly straight, absolutely accurate in diameter and concentricity. Cumberland Steel Shafts are immediately available in stock sizes from 1 1/8" to 8" inclusive with TOLERANCES as follows: Small Diameter 0.000-0.002. Large Diameter 0.000-0.003. (Special Shafts with even closer tolerances.) Widely used by machinery manufacturers of all sorts—and for line shafts.

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C. A. Fischer, 2400 W. 7th St., Fort Worth, Texas
F. C. Giebel, 90-92 W. Broadway, New York, N. Y.
F. H. Turner, Room 206, 919 Baltimore Ave., Kansas City, Mo.
F. A. Seeger, 338 Luckie St., N.W., Atlanta, Ga.

CUMBERLAND STEEL COMPANY
CUMBERLAND, MARYLAND, U. S. A.
"Quality Shafting for Over 50 Years"

Shafting, Steel

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bethlehem Steel Co., Bethlehem, Pa.
Bliss & Laughlin, Inc., Harvey, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Crucible Steel Co. of America, New York, N. Y.
Cumberland Steel Co., Cumberland, Md.
Dick, R. & J., Co., Inc., Passaic, N. J.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Frasse, Peter A., & Co., Inc., New York.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones & Laughlin Steel Corp., Pittsburgh.
LaSalle Steel Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Forge & Machine Corp., Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Union Drawn Steel Co. (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Shafts, Flexible

Dallett Co., The, Philadelphia, Pa.
Dumore Co., The, Racine, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.
White, S. S., Mfg. Co., New York, N. Y.

Shanks, Saw

(See "Bits and Shanks, Saw")

Shaper Attachments

Atkins, E. C., and Co., Indianapolis, Ind.
Delta Mfg. Co., Milwaukee, Wis.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.

Shapers, Metalworking

Pratt & Whitney Co., Hartford, Conn.
Rhodes Manufacturing Co., The, Waltham, Mass.
Rockford Machine Tool Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.

Shapers, Swage, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Shapers, Woodworking

Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Heston & Anderson, Fairfield, Iowa.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oliver Machinery Co., Grand Rapids, Mich.
Stanley Electric Tool Division, New Britain, Conn.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Sharpeners, File

Covel-Hanchett Co., Big Rapids, Mich.
Heller Brothers Co., Newark, N. J.

Sharpeners, Knife and Shear

Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
Covel Mfg. Co., Benton Harbor, Mich.
Foley Manufacturing Co., Minneapolis, Minn. (Also lawn mower sharpeners and grinders)
Goodrich Grinding Wheel Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Leetonia Tool Co., The, Leetonia, Ohio.
Luther Grinder & Tool Co., Milwaukee.

Quadriga Mfg. Co., Chicago, Ill.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Waltham Grinding Wheel Co., Waltham, Mass.

Sharpeners, Rock Drill

Ingersoll-Rand Co., New York, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Stanley Rule & Level Plant, The, New Britain, Conn.
Waltham Grinding Wheel Co., Waltham, Mass.

Sharpeners and Grinders, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Foley Manufacturing Co., Minneapolis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Waltham Grinding Wheel Co., Waltham, Mass.
Wappat, Inc., Pittsburgh, Pa.

Shaves, Spoke

Atkins, E. C., and Co., Indianapolis, Ind.
Economy Manufacturing Co., Philadelphia.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Shear and Punch Combined

(See "Punch and Shear Combined")

Shears for Belting, Packing, Leather, Rubber, Etc.

Compton, W. H., Shear Co., The, Newark, N. J.
Heinisch, R., Sons Works, Newark, N. J.
Reichel & Drews, Chicago, Ill.

Shears, Hydraulic

Armstrong-Blum Mfg. Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Dudgeon, Richard, Inc., New York, N. Y.

Shears, Metal Cutting, Belt or Motor Driven

Buffalo Forge Co., Buffalo, N. Y.
Canton Foundry & Machine Co., The, Canton, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
G. D. S. Shearing & Punching Machine Co., New York, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co. Janesville, Wis.
Stanley Electric Tool Division, New Britain, Conn.
Torrington Mfg. Co., The, Torrington, Conn.

Shears, Metal Cutting, Electric, Portable

Buffalo Forge Co., Buffalo, N. Y.
Canton Foundry & Machine Co., The, Canton, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Sons, Inc., Chicago.
Stanley Electric Tool Division, New Britain, Conn.

Shears, Metal Cutting, Hand and Foot Power

Armstrong-Blum Mfg. Co., Chicago, Ill.
Bartlett Manufacturing Co., Detroit, Mich.
Champion Blower and Forge Co., Lancaster, Pa.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

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Shear Cutter

May be used on stranded wire rope, soft bars and strips. In cutting jaws pass each other, giving complete shear movement, backed up by the tremendous power multiplication of toggle joint and lever handles.

Has shear action jaws for cutting heavy flat stock, up to 1½" x 9/32" thick or ½" stranded wire rope.

Sold by supply houses and jobbers everywhere.

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CUTS FLAT STOCK 9/16" THICK 1½" WIDE

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Hammel, Riglander & Co., Inc., Importers, New York, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mohn Machine Co., Reading, Pa.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Porter, H. K., Inc., Everett, Mass.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Shears, Metal Cutting, Rotary

Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wave Cut File & Tool Corp., New York.

Shears, Splitting, Power

Excelsior Tool and Machine Co., East St. Louis, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Quickwork Co., The, Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.

Shears, Tinners'

(See "Snips or Shears, Tinners' ")

3 TIMES
the power of the ordinary Bench Shear

Get particulars of this handy tool today

The blades extend back of the Pivot hole so that the bearing is on hardened steel, i. e., never get out of alignment.

No. 30 Bench Shear. Only 33" Over All.

"Either Right or Left Hand Cut." Illustration Shows Right Hand Cut.

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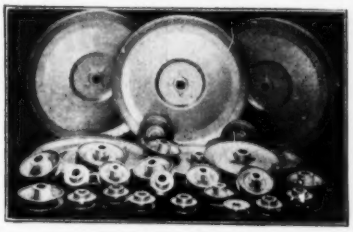

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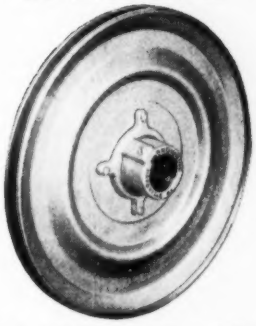

Ohio Valley Pulley Works
Div.—General Fibre Products, Inc.
Maysville, Ky.

Sheaves, Rope, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston.
Dick, R. & J., Co., Inc., Passaic, N. J.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Michigan Engine Valve Co., Detroit, Mich.
Nice Ball Bearing Co., Philadelphia, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Roebling's, John A., Sons Co., Trenton.
Starline, Inc., Harvard, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williamsport Wire Rope Co., Williamsport, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Sheaves, Tackle Block

American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Klein, M., & Son, Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Torrey Roller Bushing Works, Bath, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

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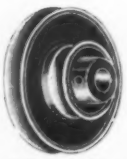
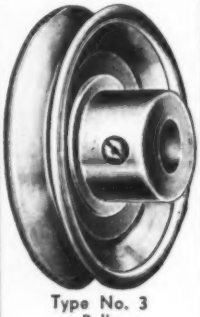


2-Step Pulley

Variable Pitch Pulley



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Chicago Die Casting Mfg. Co., Chicago, Ill.
Congress Tool & Die Co., Detroit, Mich.
Dayton Rubber Mfg. Co., The, Dayton, O.
Delta Mfg. Co., Milwaukee, Wis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Cicero, Ill.
Gates Rubber Co., The, Denver, Colo.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Nice Ball Bearing Co., Philadelphia, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.

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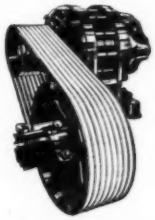

TEXROPE DRIVES offer power transmission that may be adapted to machinery mountings in any direct position. They eliminate shut-downs, are 98.9% efficient, require no belt dressing or lubrication, are unaffected by dirt or moisture, are vibrationless, slipless and silent. Texrope Drives are built in ranges from ½ to 2,000 H.P. and in speed ratios from 1 to 1, to 10 to 1 in all popular motor ratings.

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DURO-BRACE SHEAVE The outside walls of this new sheave are reinforced with convex steel plates which so greatly increase their strength as to eliminate distortion, even under extreme overloads—thus giving a true-running, vibrationless drive always.

VARI-PITCH SHEAVE The Vari-Pitch Texrope Sheave represents a vital new development in power transmission. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent.

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ALLIS-CHALMERS MFG. CO.
MILWAUKEE, WISCONSIN

TEXROPE DRIVES

ROCKWOOD
V-BELT SHEAVES
Pressed Steel and Cast Iron

Extensive service stocks of single-belt and multiple-belt sheaves, for immediate delivery. The stock sheaves have interchangeable bushings for a complete range of shaft sizes. Send for catalog.

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Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Sheaves, Wire and Manila Rope

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American Steel & Wire Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Nice Ball Bearing Co., Philadelphia, Pa.
Pyott Foundry & Machine Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williamsport Wire Rope Co., Williamsport, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Shellac

Imperial Floor Co., Inc., Rochester, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.

Shelving, Steel, Shop and Warehouse

Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Heller, W. C., & Co., Montpelier, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Shields, Expansion

Brohard Co., The, Philadelphia, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Rawlplug Co., Inc., The, New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.

Shields, Eye

Buegeleisen, Harry, Brooklyn, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Shuron Optical Co., Inc., Geneva, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Stanley Electric Tool Division, New Britain, Conn.
Weldit Acetylene Co., Detroit, Mich.

Shields, Face, Welders'

Air Reduction Sales Co., New York, N. Y.
Buegeleisen, Harry, Brooklyn, N. Y.
Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Lincoln Electric Co, The, Cleveland, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Weldit Acetylene Co., Detroit, Mich.

Shields, Hand, Welders'

Bullard, E. D., Co., San Francisco, Cal.
Chicago Eye Shield Co., Chicago, Ill.
Frasse, Peter A., & Co., Inc., New York.
General Electric Co., Schenectady, N. Y.
Miller Electric Mfg. Co., Appleton, Wis.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Strauss & Buegeleisen, Brooklyn, N. Y.
Weldit Acetylene Co., Detroit, Mich.

Shifters, Belt

Bond Foundry and Machine Co., Manheim, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Reznor Mfg. Co., Mercer, Pa.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Shims, Laminated, Brass and Copper

Laminated Shim Co., Inc., Long Island City, N. Y.

Shims, Rail

Laminated Shim Co., Inc., Long Island City, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.

Shingles, Metal

Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va. (Galvanized steel and tin)

Shoes, Ladder, Safety

Dayton Safety Ladder Co., Cincinnati, O.
Harker Mfg. Co., Cincinnati, Ohio.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland.

Shoes, Pipe

Chase Brass & Copper Co., Waterbury, Conn.
Marion Malleable Iron Works, Marion, Ind.
National Malleable & Steel Castings Co., Cleveland, Ohio.

Shoes, Protective, Workmen's

Chicago Eye Shield Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland.
Safety First Shoe Co., Holliston, Mass.

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For "Trade Names" Which Differ from The Company Name See the "Trade Name Index"

"Trade Names" Are Not Shown in the "Trade Name Index" Where They Are the Same as the Company's Name or Where the Company's Name Constitutes the First Part of the Trade Name

If you do not find a trade name in the "Trade Name Index," look for the company's name under the product heading

Shovels, Scoops and Spades

American Fork & Hoe Co., Cleveland, Ohio.
Ames-Baldwin-Wyoming Shovel Co., Parkersburg, W. Va.
Elermann Floor Scraper Co., The, Brooklyn, N. Y. (Plumbers' boring spades)
Ingersoll Steel & Disc Co., New Castle, Ind.
Iwan Brothers, South Bend, Ind. (Snow pushers, icy walk cleaners and tiling spades only)
Pfeifer, John, & Co., Philadelphia, Pa.
Wirt & Knox Co., Philadelphia, Pa. (Snow pushers)
Wood Shovel & Tool Co., Piqua, Ohio.

Shovels and Forks, Concrete

American Fork & Hoe Co., Cleveland, Ohio.
Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Wood Shovel & Tool Co., Piqua, Ohio. (Shovels only)

Shovels, Power, for Unloading Cars

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Hoist & Derrick Co., St. Paul.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Sifter Brush Belting and Brushes

Globe Woven Belting Co., Inc., Buffalo, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Victor Balata & Textile Belting Co., New York, N. Y.

Sight Feeds, Oil, Independent

Advance Packing & Supply Co., Chicago.
American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.

Signs, Danger

Handlan-Buck Mfg. Co., St. Louis, Mo.
Mine Safety Appliances Co., Pittsburgh.
Safety Fire Extinguisher Co., The, New York, N. Y.

Sinking Machines, Die

(See "Machines, Die Sinking")

Siphons

(See "Syphons")

Sirens, Electric

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Bullard, E. D., Co., San Francisco, Cal.
Federal Electric Co., Inc., Chicago, Ill.
Sterling Siren Fire Alarm Co., Inc., The, Rochester, N. Y.

Skids, Wagon

American Hoist & Derrick Co., St. Paul.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Lansing Co., Lansing, Mich.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
West Bend Equipment Corp., West Bend, Wis.

Sledges, Mauls or Striking Hammers

Bartlett Manufacturing Co., Detroit, Mich.
Chicago Rawhide Mfg. Co., The, Chicago.
Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich. (Wood Foundry Mauls)
Hubbard & Co., Pittsburgh, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Lignum-Vitae Products Corp., Jersey City, N. J.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.

Sleeves, Dredging

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Sleeves, Drill

(See "Sockets and Sleeves, Drill")

Sleeves, Pipe

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Northwest Lead Co., Seattle, Wash.

Slings, Chain

American Chain Co., Inc., Bridgeport, Conn.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
McKay Co., The, Pittsburgh, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Slings, Wire Rope

American Steel & Wire Co., Chicago, Ill.
Macwhyte Co., Kenosha, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Upson-Walton Co., The, Cleveland, Ohio.

Slitting Machines, Metal

(See "Machines, Metal Slitting"))

Slotting Machines

(See "Machines, Screw Slotting" and "Machines, Slotting")

Snippers, Woodworking

Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Snips or Shears, Tinners'

Bartlett Manufacturing Co., Detroit, Mich.
Barcalo Mfg. Co., Buffalo, N. Y.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Compton, W. H., Shear Co., The, Newark, N. J.
Crescent Tool Co., Jamestown, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Grobet File Corp. of America, New York.
Heinisch, R., Sons Works, Newark, N. J.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Snap-On Tools, Inc., Kenosha, Wis.

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Vlchek Tool Co., The, Cleveland, Ohio.
Wave Cut File & Tool Corp., New York.
Wiss, J., & Sons Co., Newark, N. J.

Soap and Cleaners, Hand

Flash Chemical Co., Cambridge, Mass.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Harris, A. W., Oil Co., Providence, R. I.
Mine Safety Appliances Co., Pittsburgh.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Skat Co., The, Hartford, Conn.
Victor Mfg. & Gasket Co., Chicago, Ill.
White & Bagley Co., The, Worcester, Mass.

Soap, Liquid, and Dispensers

Baum's Castorine Co., Rome, N. Y.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Mass.
Hoegger, Inc., Weehawken, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Morrill, Charles, Inc., New York, N. Y.
Pacific Chemical Co., Los Angeles, Calif.

Soap, Oil

Baum's Castorine Co., Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Harris, A. W., Oil Co., Providence, R. I.
Magie Bros., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.
Sherwin-Williams Co., Cleveland, Ohio.
White & Bagley Co., The, Worcester, Mass.

Soap, Powdered

Baum's Castorine Co., The, Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Skat Co., The, Hartford, Conn.

Sockets and Sleeves, Drill

Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland.
Collis Co., The, Clinton, Iowa.

(Continued on page 260)

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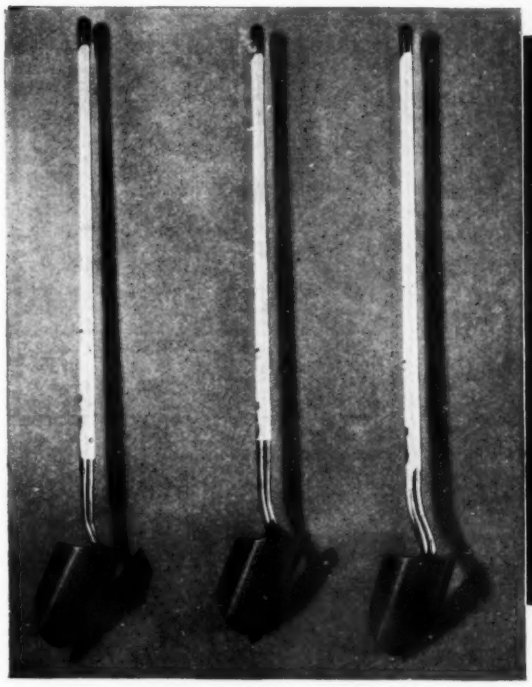

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New Castle, Indiana

INGERSOLL *Shovels*

"THE INDEPENDENT LINE"

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Sockets and Sleeves, Drill

(Continued from page 258)

Glenzer, J. C., Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stanley Electric Tool Division, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Sockets, Wire Rope

(See "Fittings, Wire Rope")

Softeners, Water

Crane Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Meier Electrical and Machine Co., Indianapolis, Ind.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Solder, Aluminum

American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dockson, C. H., Co., Detroit, Mich.
Everhot Mfg. Co., Maywood, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Michigan Smelting & Refining Co., Detroit.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Richards Co., Inc., Boston, Mass.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

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Flux-filled and wire solders in 1, 5 and 20-lb. spools.

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Atkins, E. C., and Co., Indianapolis, Ind.
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Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Federated Metals Corp., New York, N. Y.
Finn, John, Metal Works, San Francisco.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
North American Smelting Co., Inc., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Stanley Rule & Level Plant, New Britain, Conn.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.

Solder, Brazing

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Handy & Harman, New York, N. Y.
National Lead Co., New York, N. Y.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Solder, Cast Iron

Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.

Solder, Self-Fluxing

American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dunton, M. W., Co., The, Providence, R. I.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Kester Solder Co., Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
National Lead Co., New York, N. Y.
Ruby Chemical Co., The, Columbus, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Silver

Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Dockson, C. H., Co., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Great Lakes Chemical Works, Detroit.
Handy & Harman, New York, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Wire

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Finn, John, Metal Works, San Francisco.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Great Lakes Chemical Works, Detroit.
Handy & Harman, New York, N. Y.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.

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SF Soldering and Brazing Generators and Acetylene-Air Torches are economical and efficient. These outfits are highly portable. Write for the SF Catalogue.

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Rochester Lead Works, Rochester, N. Y.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Soldering Coppers

(See "Coppers and Irons, Soldering")

Soldering Flux

(See "Flux, Soldering—Paste, Stick and Liquid")

Soldering Outfits, Acetylene or Hydrogen

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Linde Air Products Co., The, New York, N. Y.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., The, Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Soldering Outfits, Gas

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Soldering Sets

(See "Sets, Soldering")

Soldering Tools

(See "Tools, Soldering")

Spacers, Arbor, Milling Machine

Cowles Tool Co., Cleveland, Ohio.
Detroit Stamping Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.

Spacers, Pipe

Grabler Mfg. Co., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.

Spades

(See "Shovels, Scoops and Spades")

Spanners, Drop Forged

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Spanners, Hose

Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Grabler Mfg. Co., Cleveland, Ohio.

Kupferle, John C., Foundry Co., St. Louis.
Robinson Fire Apparatus Mfg. Co, St. Louis, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Vulcan Tool Mfg. Co., Quincy, Mass.

Speed Reducers

(See "Reducers, Speed")

Speeders, Drill

Buffalo Forge Co., Buffalo, N. Y.

Spikes, Boat

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.

Spikes, Railroad Track

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.

Spikes, Wire and Cut

American Steel & Wire Co., Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.

Splicers, Belt

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.

Splitters, Nut

Carolus Manufacturing Co., Sterling, Ill.
Porter, H. K., Inc., Everett, Mass.

Splitters, Wood

Filer & Stowell Co., The, Milwaukee, Wis.
Moore & White Co., The, Philadelphia, Pa.
Porter, H. K., Inc., Everett, Mass.

Sprayers—Asphalt, Oil and Tar

Campbell-Hausfield Co., The, Harrison, O.
Littleford Bros., Cincinnati, Ohio.
Quigley Co., Inc., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Insecticide, Portable, Electric

Breuer Electric Manufacturing Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Metal Specialties Mfg. Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Sprayers, Insecticide, Portable, Hand

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ideal Commutator Dresser Co., Sycamore, Ill.
Saylor-Beall Manufacturing Co., Detroit.

Sprayers, Mine

Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Paint, Electric, Portable

Binks Manufacturing Co., Chicago, Ill.
Breuer Electric Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Clements Mfg. Co., Chicago, Ill.
Crown Spray Gun Mfg. Co., Los Angeles.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, Milwaukee, Wis.
H. D. B. Corporation, Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Paasche Airbrush Co., Chicago, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spray Engineering Co., Somerville, Mass.
Syntron Co., Pittsburgh, Pa.
United States Air Compressor Co., Cleveland, Ohio.

Sprayers, Tree, Whitewash, Etc.

Asch & Co., Inc., New York, N. Y. (Coal sprayers)
Binks Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Campbell-Hausfield Co., The, Harrison, O.
Chapin, R. E., The, Batavia, N. Y.
Deming Co., The, Salem, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Messmer Brass Co., St. Louis, Mo.
Miller Mfg. Co., Cedar Falls, Iowa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Spraying Booths, Paint

Binks Manufacturing Co., Chicago, Ill.
Burning Brand Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
H. D. B. Corporation, Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Paasche Airbrush Co., Chicago, Ill.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spray Engineering Co., Somerville, Mass.
Strandwitz and Scott, Inc., Camden, N. J.

Spraying Guns, Paint

(See "Guns, Paint Spraying")

Sprays, Paint

(See "Sprayers" and "Machines and Equipment, Painting and Whitewashing")

Sprays, Water, Automatic

Binks Manufacturing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
H. D. B. Corporation, Chicago, Ill.

Spring Winders

(See "Winders, Spring")

Springs, Coil

Coleman, Allan J., Chicago, Ill.
Crucible Steel Co. of America, New York, N. Y.
Hunter Pressed Steel Co., Lansdale, Pa.
Wickwire Spencer Steel Co., New York.

Springs, Pipe Bending

Bernz, Otto, Co., Inc., Rochester, N. Y.
Crucible Steel Co. of America, New York, N. Y.
Hunter Pressed Steel Co., Lansdale, Pa.
Johnson, William, Inc., Newark, N. J.
Rapid Spring Co., The, Pittsburgh, Pa. (For lead pipe)

Springs, Valve

American Steel & Wire Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Wickwire Spencer Steel Co., New York.

Sprinklers, Fire, Automatic

Central Automatic Sprinkler Co., Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton, Ohio.
Grinnell Co., Inc., Providence, R. I.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Sprinklers, Irrigation

(See "Nozzles and Sprinklers, Irrigation")

Sprinklers, Lawn

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Goodrich, B. F., Co., The, Akron, Ohio.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Penberthy Injector Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit.
Thermoid Rubber Co., Trenton, N. J.
Turner Brass Works, The, Sycamore, Ill.

Sprockets

(See "Wheels, Sprocket")

Squares, Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.

Squares, Carpenters'

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Washburn Co., The, Worcester, Mass.

Squares, Center

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

Squares, Combination

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Diemakers'

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Simplex Tool Co., Woonsocket, R. I.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Squares, Double

Lufkin Rule Co., The, Saginaw, Mich.

Squares, Draughtmen's "T"

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.

Squares, Millwrights'

Brown & Sharpe Mfg. Co., Providence, R. I.

Squares, Mitre

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Try

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Universal

Elwell-Parker Electric Co., The, Cleveland.
Lufkin Rule Co., The, Saginaw, Mich.

Squeegees

Eiermann Floor Scraper Co., The, Brooklyn, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Osborn Manufacturing Co., The, Cleveland.

Stackers

(See "Elevators, Pilers or Stackers, Portable")

Stampings, Steel

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Laminated Shim Co., Inc., Long Island City, N. Y.
Master Products Co., The, Cleveland, Ohio.
Permanent Tool & Mfg. Co., The, Dayton, Ohio.
Philadelphia Steel & Wire Corp., Philadelphia, Pa.
Steel & Tubes, Inc. (Subsidiary of Republic Steel Corp.), Cleveland, Ohio.
Toledo Pressed Steel Co., The, Toledo, Ohio.
United Screw & Bolt Corp., Cleveland, Ohio.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Stamps, Letter and Figure, Steel

Hanson, C. H., Co., The, Chicago, Ill.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Master Products Co., The, Cleveland, Ohio.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Superior Steel Stamp Co., Cleveland, Ohio.

Stands, Assembling, for Machine Shops

Angle Steel Stool Co., Plainwell, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Stands and Pulleys, Band Saw

Covel-Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Barrel or Drum

Lewis-Shepard Co., Boston, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.

Stands, Brazing

Turner Brass Works, The, Sycamore, Ill.

Stands, Drill

Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Huot Manufacturing Co., St. Paul, Minn.
Independent Pneumatic Tool Co., Chicago.
National Twist Drill & Tool Co., Detroit.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Whitman and Barnes, Inc., Detroit, Mich.

Stands, Drill, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dallett Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
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Schauer Machine Co., The, Cincinnati, Ohio.
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United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

Stands, Floor, Bar Type

Campbell, Andrew C., Division of American Chain Co., Inc., Bridgeport, Conn.

Stands, Floor, Power Transmission

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moak Machine & Tool Co., Port Huron, Mich.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Stands, Grinding Wheel

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Hisey-Wolf Machine Co., The, Cincinnati.
Moak Machine & Tool Co., Port Huron, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Stands, Motor

Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Sutorbilt Corp., Los Angeles, Calif.

Stands, Mule

Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Oxygen Tank

Bastian-Blessing Co., Chicago, Ill.

Stands, Range Boiler

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Gerard Mfg. Co., Dickson City, Pa.
Kupferle, John C., Foundry Co., St. Louis.
Link-Belt Co., Chicago, Ill.
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Richmond Foundry & Manufacturing Co., Richmond, Va.

Stands, Tool

(See "Racks and Stands, Tool")

Stands, Vise, Portable

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Black & Decker Mfg., The, Towson, Md.
Hollands Mfg. Co., Erie, Pa.
Market Forge Co., Everett, Mass.
Martin, H. P., & Sons, Owensboro, Ky.
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Ridge Tool Co., The, Elyria, Ohio.
Salem Tool Co., The, Salem, Ohio.
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Western Wire Products Co., St. Louis, Mo.
Williams, J. H., & Co., New York, N. Y.

Staples and Hasps

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Atlas Tack Corp., Fairhaven, Mass. (Staples only)
Griffin Manufacturing Co., The, Erie, Pa.
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Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Tower Mfg. Co., Madison, Ind. (Staples only)

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California Screw Co., San Francisco, Calif.
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Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Key Co., East St. Louis, Ill.
Maryland Bolt & Nut Co., The, Baltimore.
Mockbee, C. M., Co., Cincinnati, Ohio.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.

Steamers, Thawing, Pipe

(See "Machines and Steamers, Thawing, Pipe")

Steel Mill Products

Acme Steel Co., Chicago, Ill. (Hot and cold rolled strip steel and strip stainless steel)
American Rolling Mill Co., The, Middletown, Ohio. (Iron, steel and stainless steel sheets, plate, strip and coils and spiral welded pipe)
Bethlehem Steel Co., Bethlehem, Pa.
Bliss & Laughlin, Inc., Harvey, Ill. (Shafting, straightened and cut wire, screw stock)
Buffalo Bolt Co., North Tonawanda, N. Y.
Byers, A. M., Co., Pittsburgh, Pa. (Plates, sheets, billets, bar iron, pipe, etc.)
Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Crucible Steel Co. of America, New York, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
Heller Brothers Co., Newark, N. J.
Ingersoll Steel & Disc Co., New Castle, Ind.
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Jones & Laughlin Steel Corp., Pittsburgh.
Kidd Drawn Steel Co., Aliquippa, Pa. (Key steel [Woodruff] and special shapes)
LaSalle Steel Co., Chicago, Ill. (Shafting and cold finish bar steel)
Ludlum Steel Co., Watervliet, N. Y. (Tool and alloy steel)
Lyon, Conklin & Co., Inc., Baltimore, Md. (Sheet metal)
Philadelphia Steel & Wire Corp., Philadelphia, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa. (Cold drawn steel—alloy, tool, high speed and special shapes)
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Republic Steel Corp., Cleveland, Ohio.
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Sandvik Steel, Inc., New York, N. Y. (Hot rolled steel bars, bands and tubing, cold rolled steel bars and strip, cold drawn bars and tubing)
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Timken Roller Bearing Co., The, Canton.
Union Drawn Steel Co. (Subsidiary of Republic Steel Corp.), Massillon, Ohio. (Cold finished steel)
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Cleveland File Co., The, Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

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Clow, James B., & Sons, Chicago, Ill.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Stenciling Brushes

(See "Brushes, Stencil")

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Hanson, C. H., Co., The, Chicago, Ill.
Market Forge Co., Everett, Mass.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

Stencils—Copper, Brass and Zinc

Hanson, C. H., Co., The, Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kautz, Fred C., & Co., Chicago, Ill.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

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These Dies will start easier, cut better threads and give maximum service.

Interchangeable with all standard makes. Each complete set packed in a strong fibre box.

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2AH4	⅜ to 1	10.50	4.00	2.00	.40
2AH5	½ to 1	8.75	4.00	2.00	.40
2AH6	½ to ¾	7.00	4.00	2.00	.40
2½AH1	½ to 1¼	14.00	5.25	2.50	.60
2½AH2	⅜ to 1¼	16.50	5.25	2.50	.60
2½AH3	¼ to 1¼	19.00	5.25	2.50	.60
2½AH4	⅛ to 1¼	21.50	5.25	2.50	.60
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Winter Brothers Co., Inc., Wrentham, Mass.

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Armstrong Manufacturing Co., Bridgeport, Conn.
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Crane Co., Chicago, Ill.
Crown Die & Tool Co., Chicago, Ill.
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Hollands Mfg. Co., Erie, Pa.
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Oster-Williams, Cleveland, Ohio.
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Champion Blower and Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., The, Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

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Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Beaver Pipe Tools, Inc., Warren, Ohio.
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Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
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Oster-Williams, Cleveland, Ohio.
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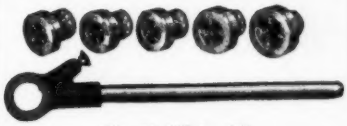

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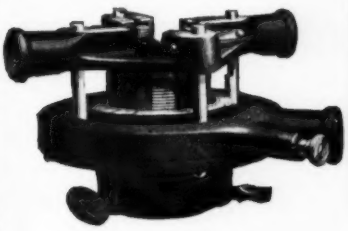

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Accurate, dependable, sturdily built for years of service.

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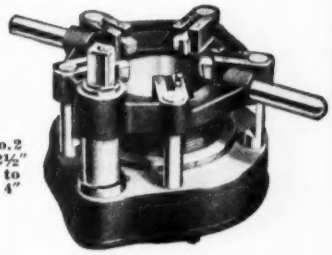

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RIGID
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Threads pipe 1" to 2". List Price—No. 65, $21.00; No. 65R, $26.00.

Thread four sizes of pipe with one set of chasers—true accurate threads, all variations—any pipe. Ratchet thumb-lever opens chasers and reverses ratchet—in one turn. Same new type workholder as No. 1R.

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Two-piece dies which are reversible, especially adapted to work where pipe is close to wall—a marked advantage over other types of threaders.

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Nos. 5R and 15R

Die heads snap in from either side held by spring ring in ratchet ring—can't fall out. Dies reverse on head for threading pipe close to wall.

List Price—No. 5R, ⅛" to 1" $30.75; No. 15R, ¾" to 1¼", $34.25.

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ELYRIA, OHIO, U. S. A.

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Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Sands Mfg. Co., The, Cleveland, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Stokers, Mechanical

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Marion Machine, Foundry & Supply Co., Marion, Ind.
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(See "Points, Stone")

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Manufacturing Equipment & Engineering Co., Framingham, Mass.
Permanent Tool & Mfg. Co., The, Dayton, Ohio.
Pollard Bros. Mfg. Co., Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Stoppers, Boiler Tube

(See "Plugs or Stoppers, Boiler Tube")

Stops, Bench

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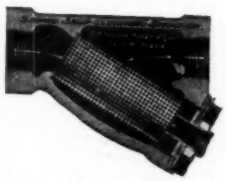
Stops, Brine

(See "Cocks or Stops, Brine")

Stops, Corporation and Waterworks

(See "Cocks or Stops, Corporation and Waterworks")

SARCO
Self-cleaning Strainer



Sarco Strainer is suitable for use on steam, gas, water, oil, etc. It has a cast iron body with perforated cylinder placed at such an angle as to offer minimum obstruction to the flow of gas or liquid, but allowing ample cleaning space. The standard screens are made of perforated brass, but where specified, monel or other metal screens can be supplied to practically any specifications.

Can be placed in horizontal or vertical lines or at any angle. A blow-off connection permits the strainer being cleaned instantly merely by opening the valve.

Made in sizes from ¼ to 8 in.; also furnished with brass bodies, caps and screws in sizes ½ to 1 in. inclusive.

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(See "Machines, Bending and Straightening," and "Presses, Straightening")

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1½" to 2"
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Watts Regulator Co., Lawrence, Mass.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
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Foster Engineering Co., Newark, N. J.
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Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
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Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

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Watson & McDaniel Co., Philadelphia, Pa.
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Wright-Austin Co., Detroit, Mich.

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Swartwout Co., The, Cleveland, Ohio.
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Watson & McDaniel Co., Philadelphia, Pa.
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(See "Setters, Stud")

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Manufacturers' Belt Hook Co., Chicago, Ill.

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Clark Bros. Bolt Co., Milldale, Conn.
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Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pawtucket Manufacturing Co., Pawtucket, R. I.
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Western Automatic Machine Screw Co., The, Elyria, Ohio.

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Ferry Cap & Set Screw Co., Cleveland, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Hartford Machine Screw Co., Hartford, Conn.
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United Screw & Bolt Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

Supplies

(See Specific Items)

Supports, Pipe

(See "Brackets and Supports, Pipe")

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Foster-Johnson Reamer Co., Elkhart, Ind.
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Stanley Rule & Level Plant, The, New Britain, Conn.

Swages, Pneumatic

Covel-Hanchett Co., Big Rapids, Mich.

Swages, Saw

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Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Shortridge, Edwin G., & Co., Kokomo, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., and Son, Chicago, Ill.

Swaging Machines

(See "Machines, Swaging")

Switches, Monorail

Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Harrington Co., The, Philadelphia, Pa.
Maris Brothers, Inc., Philadelphia, Pa.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Switches, Railroad Track

Bethlehem Steel Co., Bethlehem, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.

Swivels, Chain

American Chain Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Upson-Walton Co., The, Cleveland, Ohio.

Syphons, Acid

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Pyrene Manufacturing Co., Newark, N. J.
Safety Equipment Service Co., Cleveland.
Schutte & Koerting Co., Philadelphia, Pa.

Syphons, Pressure Gauge

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago Ill.

Syphons, Steam Jet

Hennebohle, Frank, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Starline, Inc., Harvard, Ill.
Tranter Mfg. Co., Pittsburgh, Pa.
Watson & McDaniel Co., Philadelphia, Pa.

Systems, Track, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Systems, Water Supply

Baker Manufacturing Co., Evansville, Ind.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
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Ft. Wayne Engineering Mfg. Co., Ft. Wayne, Ind.
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McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Red Cross Mfg. Co., Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Tables, Brazing

Turner Brass Works, The, Sycamore, Ill.
Weldit Acetylene Co., Detroit, Mich.

Tables, Saw

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Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.

Construction Machinery Co., Waterloo, Iowa. (Portable, for contractors)
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Nelson Bros. Co., Saginaw, Mich.
Oliver Machinery Co., Grand Rapids, Mich.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Tables, Steel

Angle Steel Stool Co., Plainwell, Mich.
Beckley Perforating Co., Garwood, N. J.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Littleford Bros., Cincinnati, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Moak Machine & Tool Co., Port Huron, Mich.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Tables, Welding

General Electric Co., Schenectady, N. Y.
Linde Air Products, Inc., The, New York.
Weldit Acetylene Co., Detroit, Mich.
West Bend Equipment Corp., West Bend, Wis.

Tables, Work, Factory

Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.
Lupton's David, Sons Co., Philadelphia, Pa.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Tachometers

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Corbin Screw Corp., The, New Britain, Conn.
Foxboro Co., The, Foxboro, Mass.
Veeder-Root, Inc., Hartford, Conn.

Tacks—Brass, Copper and Steel

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Markwell Mfg. Co., Inc., New York, N. Y.
Tower Mfg. Co., Madison, Ind. (Steel only)

Tags, Bin

Berger Manufacturing Co., The (Subsidiary of Republic Steel Corp.), Canton, Ohio.

Take-Ups, Conveyor

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Tampers

Chicago Pneumatic Tool Co., New York.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Syntron Co., Pittsburgh, Pa. (Electric tie)
Worthington Pump and Machinery Corp., Harrison, N. J.

Tanks, Fire Bucket

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.

Tanks, Gasoline

Bowser, S. F., Co., Fort Wayne, Ind.
Brownell Co., The, Dayton, Ohio.
Codd, E. J., Co. Baltimore, Md.
Farquhar, A. B., Co., Ltd., York, Pa.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Morrison Bros., Dubuque, Iowa.
Niles Steel Tank Co., Niles, Mich.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Tanks and Cabinets, Oil

Bowser, S. F., Co., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, Ohio.
Chapin, R. E., Mfg. Works, Batavia, N. Y.
Littleford Bros., Cincinnati, Ohio.
Miller MachineWorks, Springs, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.

Tanks, Paint Spray

Binks Manufacturing Co., Chicago, Ill.
Gast Mfg. Co., The, Bridgman, Mich.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Paasche Airbrush Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago, Ill.

Tanks, Rubber Lined

Blaw-Knox Co., Pittsburgh, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.

Tanks, Sand Blast

(See "Sand Blast Machines and Equipment")

Tanks, Storage

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Bastian-Morley Co., La Porte, Ind.
Bowser, S. F., & Co., Fort Wayne, Ind.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Miller Machine Works, Springs, Pa.
Morrison Bros., Dubuque, Iowa.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicagc, Ill.
Weller Mfg. Co., Chicago, Ill.

Tap and Drill or Reamer Combined

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.

Tape and Wicking, Asbestos

Carey, Philip, Co., The, Lockland, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Tape, Insulating or Friction

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Carey, Philip, Co., The, Lockland, Ohio. (Asbestos)
Dunton, M. W., Co., The, Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Johns-Manville, New York, N. Y.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
New York Belting & Packing Co., Passaic, N. J.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

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Lufkin Rule Co., The, Saginaw, Mich.

Tapes, Measuring

Dietzgen, Eugene, Co., Chicago, Ill.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Tappers, Electric

Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York.
Independent Pneumatic Tool Co., Chicago.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., Towson, Md.

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Tappers, Nut

Alvord-Polk Tool Co., Millersburg, Pa.
Barnes Drill Co., Rockford, Ill.
Chicago Pneumatic Tool Co., New York.

Tapping Attachments

Barnes Drill Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago.
Delta Mfg. Co., Milwaukee, Wis.
Ettco Tool Co., Brooklyn, N. Y.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Milwaukee Electric Tool Corp., Milwaukee.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Tapping Machines

(See "Machines, Tapping")

Taps—Bit Brace, Blacksmiths', Boiler, Machine Screw, Machine Nut, Machinists' Hand, Patch Bolt, Pulley, Staybolt, Tapper, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I. (Machine screw)
Armstrong Manufacturing Co., Bridgeport, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap and Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Champion Blower & Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.

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TRADE MARK
THE STANDARD TOOL CO.
CLEVELAND
NEW YORK - DETROIT - CHICAGO

Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.

Taps, Collapsible

Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Taps, Expanding

Card, S. W., Mfg. Co., Division of Union Twist Drill, Mansfield, Mass.
Pratt & Whitney Co., Hartford, Conn.

Taps, Hob

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Conant & Donelson Co., Conway, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.

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BROOKLYN, N. Y.

Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., The, Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.

Taps, Mud Plug or Washout

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers, Inc., Wrentham, Mass.

Taps, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Conant & Donelson Co., Conway, Mass.
Crane Co., Chicago, Ill.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Walworth Co., New York, N. Y.
Winter Brothers, Inc., Wrentham, Mass.

Taps, Serial

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap and Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Stove Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford ,Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Taper

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mark, Clayton & Co., Chicago, Ill.
National Acme Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Wells Mfg. Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Tapper

Alvord-Polk Tool Co., Millersburg, Pa.
Bath, John, & Co., Inc., Worcester, Mass.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co.. Detroit.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Thread, Brass Tubing

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Threadwell Tap & Die Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Tarpaulins

Atlantic Manufacturing Co., Wilmington, Del.
Hettrick Mfg. Co., Toledo, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Upson-Walton Co., Inc., The, Cleveland, O.

Tees, Branch

Acheson Manufacturing Co., Rankin, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Grinnell Co., Inc, Providence, R. I.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., North Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Tees, Brass

Acheson Manufacturing Co., Rankin, Pa.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Tees, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dick Brothers, Inc., Reading, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Eccentric

Crane Co., Chicago, Ill.
Grinnell Co, Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhns Bros. Co., Dayton, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.

Tees, Ferrosteel

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Moak Machine & Tool Co., Port Huron, Mich.
Sarco Co, Inc., New York, N. Y.
Walworth Co., New York, N. Y.

Tees, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., & Co., Philadelphia, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Pittsburgh Valve & Fittings Co., Pittsburgh, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Malleable Iron

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Steel

Crane Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Suction

Dick Brothers, Inc., Reading, Pa.
Walworth Co, New York, N. Y.

Tees, Union

Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore Md. (Bronze)
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Teeth, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tenders, Tool and Machine

Angle Steel Stool Co., Plainwell, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Tents, Canvas

Hettrick Mfg. Co., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.

Testers, or Test Pumps, Gauge

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Syracuse Steam Generator, Inc., Syracuse.

Testers, Screw Thread Gauge

Lufkin Rule Co., The, Saginaw, Mich.

Testers, Water Meter

Mueller Co., Decatur, Ill.

Thawers, Pipe, Steam

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Unique Manufacturing Co., Inc., Chicago.

Thawing Machines and Steamers, Pipe

(See "Machines and Steamers, Thawing, Pipe")

Thermometers, Dial

Ideal Commutator Dresser Co., Sycamore, Ill.
Sarco Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Thermometers, Hot Water

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Co., New York, N. Y.

Thermometers, Indicating

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

Thermometers, Recording

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Thermostats

Barber-Colman Co., Rockford, Ill
Bastian-Morley Co., La Porte, Ind.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
General Electric Co., Schenectady, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
National Dry Kiln Co., The, Indianapolis, Ind. (Dry kiln)
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.

Thieves, Water

Economy Manufacturing Co., Philadelphia.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

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Grabler Mfg. Co., Cleveland, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.

Thimbles, Rope

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Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Boston & Lockport Block Co., East Boston, Mass.
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Madesco Tackle Block Co., Easton, Pa.
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Upson-Walton Co., The, Cleveland, Ohio.
Wickwire Spencer Steel Co., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Thimbles, Wall

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Wood's, T. B., Sons Co., Chambersburg, Pa.

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National Machine Tool Co., Racine, Wis.

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(See "Machines, Thread Rolling")

Threaders, Bolt and Cap Screw

(See "Machines, Threading, Bolt and Cap Screw," and "Stocks and Dies, Bolt")

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Borden Co., The, Warren, Ohio.
Greenfield Tap & Die Corp., Greenfield, Mass.

Threaders, Pipe

(See "Machines, Cutting and Threading, Pipe," "Stocks, Die," "Stocks and Dies," and "Dies, Pipe Threading")

Threading Machines

(See "Machines, Threading," and "Machines, Cutting and Threading")

Tiering Machines

(See "Elevators, Pilers or Stackers, Portable")

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Allis-Chalmers Manufacturing Co., West Allis, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Chicago Pulley & Shafting Co., Chicago.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquahar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee,, Wis.
Hill Clutch Machine & Foundry Co,, The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Schwenk Safety Device Corp., New York.

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Bastian-Blessing Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.

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Carroll Chain Co., The, Columbus, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Star Expansion Bolt Co., New York, N. Y.

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Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tongs, Bolt

Heller Bros. Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

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(See "Wrenches, Pipe, Chain")

Tongs, Clinch

Heller Brothers Co., Newark, N. J.

Tongs, Clinker

Leetonia Tool Co., The, Leetonia, Ohio.

Tongs, Crucible

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Hammel, Riglander & Co., Inc., Importers, New York, N. Y.

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Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tongs, Rail and Tie

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Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Tongs, Skidding

Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tongs, Stone

Dallett Co., The, Philadelphia, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tool Boxes and Chests

(See "Boxes, Tool," and "Chests, Tool")

Tool Sets, Hollow Handle

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Millers Falls Co., Greenfield, Mass.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Anvil

Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
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Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Balancing

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Gisholt Machine Co., Madison, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.

Tools, Beading

Leetonia Tool Co., The, Leetonia, Ohio.
Niagara Machine & Tool Works, Buffalo.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Belt Lacing

Alexander Brothers, Inc., Philadelphia, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Detroit Belt Lacer Co., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Malin Co., The, Cleveland, Ohio.
Manufacturers' Belt Hook Co., Chicago, Ill.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Safety Belt-Lacer Co. Toledo, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

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Chicago Rawhide Mfg. Co., The, Chicago.
Graton & Knight Co., Worcester, Mass.
Manufacturers' Belt Hook Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

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Champion Blower & Forge Co., Lancaster, Pa.
Electric Blower Co., Boston, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Heller Brothers Co., Newark, N. J.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Noyes, B. B., Co., Greenfield, Mass.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Drilling Machine Co., Akron, Ohio.

Tools, Boilermakers'

Dudgeon, Richard, Inc., New York, N. Y.
Excelsior Tool & Machine Co|, East St. Louis, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Key Co., East St. Louis, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Tools, Boring

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Delta Mfg. Co., Milwaukee, Wis.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Also tunneling tools)
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hannifin Mfg. Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Lovejoy Tool Co., Inc., Springfield, Vt.
Madison Manufacturing Co., Muskegon, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Tools—Boring, Facing and Turning Combined

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Gisholt Machine Co., Madison, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Tools, Brazing

Air Reduction Sales Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia Pa.
Heller Brothers Co. Newark, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, New York.
Smith Welding Equipment Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Tools—Bricklayers', Cement Workers' and Masons'

American Swiss File & Tool Co., Elizabeth, N. J.
Atlas-Ansonia Co., New Haven, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston Mass.
Eiermann Floor Scraper Co. The, Brooklyn, N. Y. (Floor scraper for cement workers)
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Marshalltown Trowel Co., Marshalltown, Iowa.
Peerless Level & Tool Co., The, Sterling, Ill.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Calking

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Drew, C., & Co., Kingston, Mass.
Johnson, William, Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mueller Co., Decatur, Ill.

Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

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Armstrong Bros. Tool Co., Chicago, Ill.
Carboloy Co., Inc., Detroit, Mich.
Ludlum Steel Co., Watervliet, N. Y.

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Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grobet File Corp. of America, New York.
Heller Brothers Co., Newark, N. J.
Lignum-Vitae Products Corp., Jersey City, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Tuck Mfg. Co., Brockton, Mass.
Wappat, Inc., Pittsburgh, Pa.
Williams, J. H., & Co., New York, N. Y.

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Tools, Combination

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Heller Brothers Co., Newark, N. J.

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Drew, C., & Co., Kingston, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

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(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

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Commercial Diamond Co., Detroit, Mich.
Crucible Steel Co. of America, New York, N. Y.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Karelsen, E., Inc., New York, N. Y.
Kelly Reamer Co., Cleveland, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio.
Plomb Tool Co., Los Angeles, Calif.

Tools, Dowel

Delta Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Tools, Draughtsmen's

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Starrett, L. S., Co., The, Athol, Mass.

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(See "Machines and Tools Drilling, Well")

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(See Specific Items)

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Compton, W. H., Shear Co., The, Newark, N. Y. (Shears and scissors)
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Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
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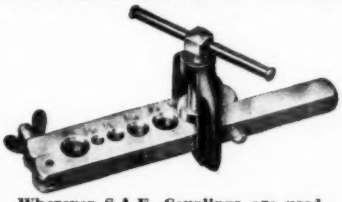

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Imperial Brass Manufacturing Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
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Weller Mfg. Co., Chicago, Ill.

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Williams, J. H., & Co., New York, N. Y.

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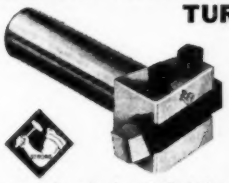

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Schollhorn, Wm., Co., New Haven, Conn.

Tools, Logging

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Leach Co., Oshkosh, Wis.

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(See "Tools, Pipe, Machinists'")

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Chicago Tool & Engineering Co., Chicago.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
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Hinsdale Manufacturing Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford, Ill.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

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Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.

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Moak Machine & Tool Co., Port Huron, Mich.

Tools, Oil Well

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Crucible Steel Co. of America, New York, N. Y.
Hinsdale Manufacturing Co., Chicago, Ill.
Star Drilling Machine Co., Akron, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Tools, Packing

Cleveland Rock Drill Co., The, Cleveland.
Greene, Tweed & Co., New York, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Tools, Paving

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Drew, C., & Co., Kingston, Mass.
United Screw & Bolt Corp., Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Marcy Tool Works, Inc., Putnam, Conn.
Moak Machine & Tool Co., Port Huron, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Templeton, Kenly & Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Tools—Plumbers', Steam and Gas Fitters'

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas-Ansonia Co., New Haven, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Blake Specialty Co., Rock Island, Ill.
Beaver Pipe Tools, Inc., Warren Ohio.
Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Crescent Tool Co., Jamestown, N. Y.
Drew, C., & Co., Kingston, Mass.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Boring spades)
Heller Brothers Co., Newark, N. J.
Hollands Mfg. Co., Erie, Pa.
Johnson, William, Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mueller Co., Decatur, Ill.
Plomb Tool Co., Los Angeles, Calif.
Rapid Spring Co., The, Pittsburgh, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tools, Pneumatic

Buckeye Portable Tool Co., The, Dayton, Ohio.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Railroad Track

Aldon Co., The, Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pneumatic Tool Co., New York.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Roofers'

Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Scratch bars or scraper)
Gundlach, T. J., Machine Co., Belleville, Ill. (Asphalt cutters)
Littleford Bros., Cincinnati, Ohio.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.

Tools, Sash

Osborn Manufacturing Co., The, Cleveland.

Tools, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis.
K-D Manufacturing Co., Lancaster, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tools, Scaling

(See "Hammers, Pneumatic-Chipping, Scaling, Riveting and Calking")

Tools, Screw Cutting, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Gairing Tool Co., Detroit, Mich.
National Acme Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Tools, Screw Machine

Armstrong Bros. Tool Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Scully-Jones & Co., Tool Division, Chicago, Ill.

Tools, Shaper

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Sheet Metal Working

(See "Machines and Tools, Sheet Metal Working")

Tools, Slotter

Armstrong Bros. Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.

PNEUMATIC TOOLS
— A complete line —
Drills Hoists
Grinders Wrenches
Riveters Tampers
Chippers Saws
Ingersoll-Rand
11 BROADWAY, NEW YORK CITY

Tools, Soldering

Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hones, Charles A., Inc., Baldwin, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.

Tools, Soldering, Electric

Electric Soldering Iron Co., Inc., New York, N. Y.
Electric Torch Mfg. Co., Oakland, Calif.
General Electric Co., Schenectady, N. Y.
Vulcan Electric Co., Lynn, Mass.

Tools, Stonecutters'

Dallett Co., The, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass. (Marble workers' tools)
Kilborn and Bishop Co., The, New Haven, Conn.
Lignum-Vitae Products Corp., Jersey City, N. J.
Ruemelin Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wappat, Inc., Pittsburgh, Pa.

Tools, Stud Setting

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Milwaukee Electric Tool Corp., Milwaukee.
Van Dorn Electric Tool Co., The, Towson, Md.

Tools, Threading

(See "Dies," "Plates, Screw," "Stocks, Die," "Stocks and Dies" and "Taps")

Tools, Tinners'

Barcalo Mfg. Co., Buffalo, N. Y.
Bartlett Mfg. Co., Detroit, Mich.
Crescent Tool Co., Jamestown, N. Y.
Lignum-Vitae Products Corp., Jersey City, N. J.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co, Rockford, Ill.

Tools, Truing, Grinding Wheel

Armstrong Bros. Tool Co., Chicago, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.

Tools, Turret Head

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

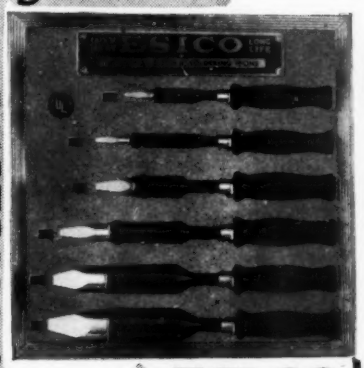
Tools, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Tools, Wood Carving

Dallett Co., The, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lignum-Vitae Products Corp., Jersey City, N. J.
Millers Falls Co., Greenfield, Mass.
Ruemelin Mfg. Co., Milwaukee, Wis.

Everything FOR Soldering



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ALMOST a decade of specialization in the manufacture of rugged and efficient industrial irons has definitely established ESICO as the top rank iron in industry. Thousands of satisfied plant users everywhere recommend ESICO industrial soldering irons—your guarantee of market preference and substantial sales volume. *A complete line—a quality item—a cooperative policy*—isn't this the kind of product you want? Of course it is! *Your inquiries are invited.*

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FREE: The display board illustrated at the head of this advertisement is available for your showroom use—FREE! Good-looking, chromium trimmed, 15"x 18" in size, featuring six of the popular industrial irons; it will "self-merchandize" your soldering iron stock! With this display as your star salesman, you "sell the iron that sells itself"!

Electric Soldering Iron Co.
342 West 14th St., New York City

ESICO

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MULTI-FLAME TORCH
is made for long, hard service . . . .

SUITABLE for industrial work of all kinds. Its enormous 10-inch blue flame saves time. Regulates to a small pointed flame for fine soldering. Triple-capacity pump. Steel vein liners, removable for cleaning. Gas orifice block and cleaning pin renewable when worn or damaged.

Write for descriptive folder to the

CLAYTON & LAMBERT MFG. CO.
DETROIT, MICHIGAN
Makers of World's Largest Selling Firepots

Tools, Wood Turning

Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.

Torches, Blow

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto , Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clements Mfg Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago.
Eagle Manufacturing Co., Wellsburg, W. Va.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.

TURNER

Blotorches
for every purpose and use, have established an enviable reputation for high standards of quality and performance.

Have been made for nearly 65 years.

No. 39A—List $8.50

THE TURNER BRASS WORKS
Sycamore, Ill. U.S.A.

DREADNAUGHT

Service with Safety

BLOW TORCHES

Drawn Steel Tank combines light weight with great strength, welded bottom and only three openings in tank—filler plug, pump and supply pipe connections, flanged on inside and brazed.

Angle Handle, restful to operator; Filler Plug in the top easy to fill; Bakelite Valve Wheel will not conduct heat.

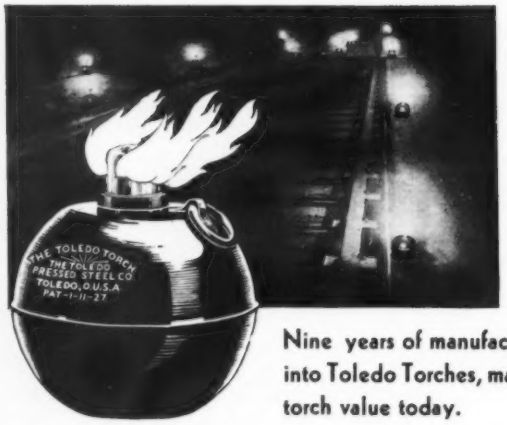
Automatic Cleaning Needle in valve stem cleans burner orifice every time valve is closed, easily removable and will not enlarge orifice.

Seamless brass pump with positive check valve.

Patented Burner of coil and casting type, readily preheated.

P. Wall Mfg. Supply Co.
3126 Preble Ave.
Pittsburgh, Pa.

Toledo Torches



No other torch offers the economical, sure-fire protection that is secured with the genuine Toledo Torch. Recent refinements in construction still further simplify handling.

●

Nine years of manufacture and service are built into Toledo Torches, making them the outstanding torch value today.

The Harder It Blows . . . The Better They Burn

Toledo Truck Flares

Fully in keeping with the high standards always maintained by Toledo Torches is this more recent addition to the line,—a better kind of truck flare. Using the same dependable Economy Burner and packed in a heavy steel case, they more than meet all state and federal requirements.

These flares are available in sets of two or three. The case is attachable to the truck in any convenient place or position. The flares fit the case in any position and may be locked in place. A specially designed flag completes this compact and convenient unit.

Write for full details

MADE BY

The Toledo Pressed Steel Co.

TOLEDO, OHIO

"Always Reliable" Torches and Firepots

Time-tested since 1876, OTTO BERNZ torches, firepots, and tools are standard equipment with mills, factories, railroads, utilities, and industrial concerns. They meet the rigid specifications of governmental departments, including Navy, Army, Air Corps, and Marines. Of extra heavy construction, embodying many patented improvements, BERNZ torches and firepots can be depended on to perform perfectly under all extremes of weather.

No tool kit is complete unless it includes a BERNZ torch and firepot. No jobber's stock is complete unless it contains an assortment of these articles to meet the urgent demand. Write for our No. 65 catalog for full details.

● ● ● ● ● ●

No. 500A—1 quart Gasoline

The No. 500-A, as illustrated, is a popular torch among the mills. Produces a long, hot flame that can be reduced to any size. Burns in any position. Burner cleaned automatically. Equipped with patented "NeverLeak" pump and other safety features.

The No. 46 is the best general utility firepot. Equipped with patented flame control and automatic cleanout, also "NeverLeak" pump. All parts welded or brazed—no soft solder used. Extra heavy construction to withstand rough usage.

No. 46—1 gallon Gasoline

OTTO BERNZ CO., Inc. Rochester, N. Y.

Justrite Manufacturing Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Milburn, Alexander, Co., The, Baltimore.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Sandvik Saw & Tool Corp., Minneapolis.
Schaefer & Beyer, Inc., Newark, N. J.
Skilsaw, Inc., Chicago, Ill. (Electric).
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Contractors'

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg Co., Detroit.
Consolidated Iron-Steel Mfg Co., Cleveland, Ohio.
Dietz, R. E., Co., New York, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Unique Manufacturing Co., Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Cutting and Welding

Aeroil Burner Co., Inc., West New York, N. J.
Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Electric Torch Mfg. Co., Emeryville, Cal.
Harris Calorific Co., The, Cleveland, Ohio.
Imperial Brass Manufacturing Co., Chicago.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products, Inc., The, New York.
Milburn, Alexander, Co., The, Baltimore.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Torches, Decarbonizing

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, Ohio.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products, Inc., The, New York.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Torches—Engineers', Factory, Mine, Etc.

Anthes Force Oiler Co., Fort Madison, Iowa.
Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Gas

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clements Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Harris Calorific Co., The, Cleveland, Ohio.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Pittsburgh Thermoline Co., Pittsburgh.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Red Devil Manufacturing Co., Palatine, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Weldit Acetylene Co., Detroit, Mich.

Torches, Gasoline

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Detroit Torch & Manufacturing Co., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.

Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Schaefer & Beyer, Inc., Newark, N. J.
Turner Brass Works, The, Sycamore, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Kerosene

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dietz, R. E., Co., New York, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Harris Calorific Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Mfg. Company, St. Paul, Minnesota.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Thawing and Heating

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diamond Iron Works, Inc., Minneapolis.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Torch Mfg. Co., Emeryville, Cal.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Mfg. Co., St. Paul, Minn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.
Weldit Acetylene Co., Detroit, Mich.

Torches, Truck

Embury Manufacturing Co., Warsaw, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Wall, P., Mfg. Supply Co., Pittsburgh.

Torches, Welding and Cutting

(See "Torches, Cutting and Welding")

Tracks, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Tractors, Factory

(See "Trucks and Tractors, Factory")

Trailers for Industrial Tractors

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car & Foundry Co., New York.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Littleford Bros., Cincinnati, Ohio.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Service Caster & Truck Co., The, Albion, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trammels

Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tramways, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Transits, Builders'

Dietzgen, Eugene, Co., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.

Transmissions, Right Angle

De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Cicero, Ill.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Transmissions, Speed Reducing

(See "Reducers, Speed")

Transmissions, Variable Speed

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Lewellen Manufacturing Co., Columbus, Ind.
Link-Belt Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Reeves Pulley Co., Columbus, Ind.
Rockford Drilling Machine Co., Rockford, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Traps, Air

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
H. D. B. Corporation, Chicago, Ill.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Back Water

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.

Traps, Blast

Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Kaye & MacDonald, Inc., West Orange, N. J.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Gasoline

Anderson, V. D., Co., The, Cleveland, O.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Grease

American Foundry & Mfg. Co., St. Louis.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Steam Appliance Co., West Allis, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Oil

American Injector Co., Detroit, Mich.
Armstrong Machine Works, Three Rivers, Mich.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Pumping

Kieley & Mueller, Inc., New York, N. Y.
Strong, Carlisle & Hammond, Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.

Traps, Radiator

Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Kaye & MacDonald, Inc., West Orange, N. J.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
National Lead Co., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Traps, Sediment

(See "Strainers and Traps, Sediment")

Every Effort Has Been Made

to Make

The Directory Edition

as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

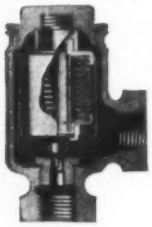
In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

SARCO STEAM TRAPS

Type No. 9—This is a thermostatic trap, suitable for individual trapping of all types of steam heated equipment. It is low in first cost, of small size and easy to install, going into the pipe like a fitting.



The No. 9 Trap is self-adjusting and works equally well on steady or fluctuating pressures. The discharge valve is operated by a helical bellows containing a volatile fluid. The moment live steam reaches the trap this fluid expands and closes the valve tightly. As condensate collects, the bellows contracts and opens the valve. Will not stick, freeze or air bind.

Type 9-1 for pressures 0 to 50 lb. Brass valve head and seat.

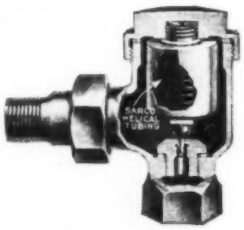
Type 9-2 for pressures from 0 to 125 lb. Stainless steel valve head and seat. Type 9-200 for pressures 0 to 200.

Write for Catalog Z-48.

Type No. 8—This trap utilizes the hydraulic pressure of a heavy hydrocarbon oil hermetically sealed in a metal tube. Due to the irresistible force of expanding oils, this trap is unfailing in action.

A simple adjustment enables the user to adapt the trap for use at various pressures. *Write for Catalog Z-48.*

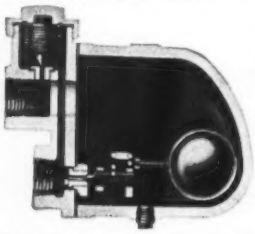
Type No. S-75 for Process Steam—Employs the same principle as the No. 9 Trap, but has union inlet connection and nickel-plated body. It has renewable stainless steel valve head and seat. Recommended for installations where process steam is used up to 100 lb. pressure. *Write for Catalog Z-46.*



Combination Float and Thermostatic Steam Trap FTH

For heavy service, where large quantities of very hot condensate form more rapidly than they can be handled by thermostatic means alone, such as large unit heaters, steam coils, hot water service tanks, etc., when using high pressure steam.

Body is cast iron, light enough to be supported directly on piping. A heavy seamless copper float opens the discharge valve through a simple toggle mechanism, as condensate accumulates in the trap. Valve head and renewable seat are stainless steel to withstand the scoring action of scale and sediment, and prevent wire drawing.



A thermostatic air vent is built right into the trap near the top. This consists of a small valve actuated by a helically coiled bellows, partly filled with a volatile liquid. The valve is held open as long as there is air in the trap, but closed tightly as soon as steam reaches it and causes the bellows to expand.

All working parts are attached to the cover so that they are easily inspected by removing the trap body without disturbing any piping connections. For pressures up to 200 lb. per sq. in. *Write for Catalog Z-38.*

SARCO CO., Inc.

183 Madison Ave. New York, N. Y.

Branches in Principal Cities

Sarco Canada Limited, Federal Bldg., Toronto, Ont., Canada

Traps, Steam

American Blower Corp., Detroit, Mich.
American Foundry & Mfg. Co., St. Louis.
Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, The, Three Rivers, Mich.
Automatic Primer Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
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Connor, W. B., Engineering Corp., New York, N. Y.
Crane Co., Chicago, Ill.
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Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Healy-Ruff Co., St. Paul, Minn.
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Johns-Manville, New York.
Justus Steam Trap Co., Napanoch, N. Y.
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Lawler Water Feed and Damper Regulator Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
Lytton Manufacturing Corp., Franklin, Va.
McAuley Automatic Trap Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Steam Appliance Co., West Allis, Wis.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
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Powers Regulator Co., The Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
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Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Trerice, H. O., Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., Cincinnati.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Traps, Steam, Expansion

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Connor, W. B., Engineering Corp., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Tagliabue Mfg. Co., Brooklyn, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Traps, Steam, Return

Bishop & Babcock Sales Co., Cleveland, O.
Connor, W. B., Engineering Corp., New York, N. Y.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York, N. Y.
Efficiency Engineering Co., Boston, Mass.
Kaye & MacDonald, Inc., West Orange, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Traps, Steam, Thermostatic

Bishop & Babcock Sales Co., Cleveland.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Lawler Water Feed and Damper Regulator Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.

Traps, Steam, Water Seal

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Connor, W. B., Engineering Corp., New York, N. Y.
D. G. C. Trap & Valve Co., Inc., New York.
Davis Regulator Co., Chicago, Ill.

(Continued on page 280)

YARWAY STEAM TRAP DATA

OPERATION

The Yarway Steam Trap operates on an entirely new principle. This trap does not depend upon the weight of condensate, the buoyancy of a float or the expansion of a bellows, but rather upon the difference in flow characteristics of steam and water flowing through two orifices, with a chamber between. Movement of valve is governed by variations in pressure in the space above the valve, called control chamber — these changes in pressure occuring with changes in temperature of condensate.

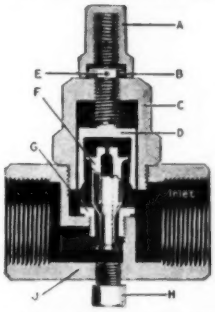
When handling condensate, the pressure tending to lift valve is greater than reduced pressure in control chamber, and the valve opens, allowing free discharge of condensate. As accumulation of condensate disappears, remaining condensate approaches steam temperature, flashing takes place, the flow is choked and pressure builds up in control chamber, closing valve. The characteristic discharge of Yarway traps varies with the condensate load as follows:

1—Small amount of condensate — Discharge is small and continuous through control orifice. Main valve does not lift.

2—Medium condensate load — Discharge is usually intermittent or pulsating, the main valve opening and closing at short intervals, with light discharge between intervals.

3—Heavy condensate load—Discharge is heavy and continuous, with valve wide open.

Yarway traps are factory-set for all pressures from 0 to 400 pounds; hence they are ready for operation in all kinds of service without adjustment or interchange of internal parts.



CONSTRUCTION

The Yarway Steam Trap is unique in that there is only one moving part — the simple valve F illustrated. This trap is made of "bar-stock" throughout — no castings used in its construction. Body is cold rolled steel, valve and seat are of special hard monel, bonnet and cap of hex tobin bronze.

Years of service of thousands of Yarway traps in leading plants has proven these materials suitable for the service.

A—Cap Nut D—Control Cylinder G—Valve Seat
B—Lock Nut E—Lock Pin H—Test Plug
C—Bonnet F—Valve J—Body

INSTALLATION

A few typical Yarway trap connections are shown below, and the general ideas outlined can be applied to practically any kind of equipment requiring draining. The trap should be installed in a horizontal position with bonnet at top. Place it where it will be easily accessible for inspection. Always locate trap as far away as possible from the point which is to be drained, and use bare pipe between drain point and trap.

It is well to locate valves so that trap can be cut off, if necessary, without interrupting other plant service. Bypasses are not necessary.

For best results, a large stra[illegible] having a fine mesh scr[illegible] should always be used ahea[illegible] every Yarway trap. There i[illegible] trap made that will operate on [illegible]

Before starting trap, blow piping out thoro[illegible]ly. In case strainer is not used and some [illegible] is present in condensate, we reccomm[illegible] that no trap smaller than 1" size be u[illegible]

A 1/8" pipe plug is furnished on bottom o[illegible] traps. This connects with discharge chan[illegible] of trap. A 1/8" try cock or a nipple and v[illegible] can be screwed into this opening for use in checking [illegible] operation of trap when connected into a closed return system.

The discharge port in a Yarway trap is very short, so if dischargi[illegible] atmosphere, run a length of pipe from discharge end so as to re[illegible] noise and flash steam.

1. The Yarway steam trap will *not air bind.*
2. No priming is required with Yarway traps.
3. Yarway traps will not lose their prime by sudden pressure reduct[illegible]

CAPACITIES

Maximum continuous discharge of conden[illegible] in pounds per hours at 30° below steam temperature.

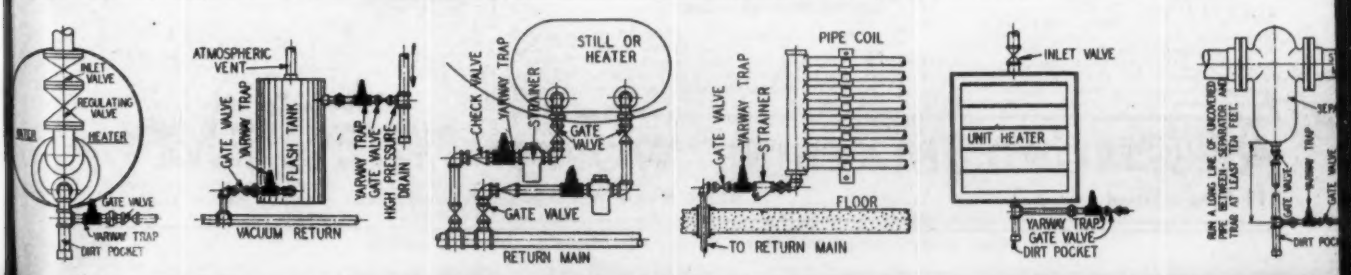
Pressure Pounds	1/2" No. 60	3/4" No. 61	1" No. 63	1 1/4" No. 64	1 1/2" No. 66	2" No.
10	475	825	1360	1910	2400	342
20	650	1150	1725	2315	3050	434
30	800	1375	1985	2650	3525	503
40	900	1575	2220	2950	3950	561
50	980	1725	2425	3200	4315	610
60	1050	1850	2600	3425	4630	652
70	1140	1975	2775	3660	4940	693
80	1200	2080	2925	3875	5200	726
90	1240	2175	3075	4075	5440	760
100	1290	2260	3215	4280	5675	787
125	1400	2460	3550	4760	6165	853
150	1490	2640	3870	5175	6630	907
200 to 400	1630	2900	4380	5960	7410	995

Where greater capacity at low pressure is required, use two or m[illegible] traps with check valve on discharge end of each trap. Where there [illegible] several places to be drained, each having a small amount of conde[illegible]tion, and locations are close together, these points may be conne[illegible] into one pipe line using one 1/2" trap, placing gate and check valv[illegible] each drain point. Yarway traps will operate against normal b[illegible] pressure in return systems.

LIST PRICES, WEIGHTS AND DIMENSION[illegible]

Size	Trap Complete	Body	Bonnet	VALVE ASSEMBLY (control cylinder with lock-nut and pin, valve, valve seat)	Wt. Lbs.	Leng Inch
1/2" No. 60	$7.50	$1.80	$1.60	$4.10	1 1/8	2[illegible]
3/4" No. 61	11.00	2.40	2.20	6.40	1 3/4	2[illegible]
1" No. 63	15.50	9.80	2.60	8.20	2 1/2	3[illegible]
1 1/4" No. 64	24.00	4.70	3.50	10.70	3 7/8	3[illegible]
1 1/2" No. 66	34.00	16.60	4.40	13.00	6	4[illegible]
2" No. 67	45.00	22.50	6.20	16.30	8 1/2	4[illegible]

NOTE — Bonnet price includes cap nut.



UMI

ARMSTRONG STEAM TRAPS

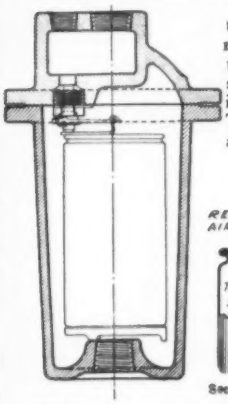
THE Armstrong line of steam traps is complete, with traps designed for any type of service, any capacity, and any pressure. Each trap embodies the genuine inverted bucket principle and is non-air-binding and self-scrubbing.

The Armstrong trap has only two moving parts — the valve lever assembly and the inverted bucket. The seat and valve are special heat treated chrome steel and all other wearing parts are nickel chrome steel.

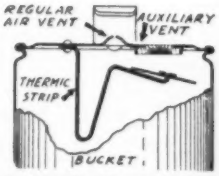
Trap mechanisms are carried in stock to resist such acids as sulphurous, nitric, and hydrogen sulphide, as well as common alkalis. Special materials can be used on order.

For extra fast removal of air the Armstrong "blast" trap is recommended, having an air removal capacity of from 400 to 800 cu. ft. of free air per hour.

For high pressure or high temperatures, for pulsating pressure or very large amounts of condensate, consult the nearest Armstrong representative, or send for The Armstrong Trap Book, a 28-page steam trap manual. The listings below permit ordering any general service traps your customers need.



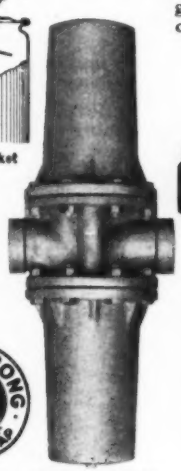
Cross Section of Trap



Section of the Thermic Bucket Used in "Blast" Trap

No. 200 Trap

No. 213 Trap



Compound—For Big Condensate Volume

Forged Steel—For High Pressure

SIZES, CAPACITIES AND LIST PRICES OF ARMSTRONG TRAPS

TRAP SIZE		No. 200	No. 201	No. 211	No. 212	No. 213	No. 214	No. 215	No. 216
Pipe Connections		½" or ¾"	½" or ¾"	½"	½" or ¾"	½" or ¾"	1"	1" or 1¼"	1½" or 2"
List Price, Standard Trap, without Air Bypass		$7.00	$7.00	$9.25	$15.00	$20.75	$29.00	$38.00	$55.00
Telegraph Code, without Air Bypass		Acacia	Acanthus	Aspen	Birch	Walnut	Hemlock	Larch	Tamarack
List Price, with Air Bypass		*$8.50	*$8.50	$10.75	$17.00	$22.75	$31.50	$40.50	$60.00
Telegraph Code, with Air Bypass		Acacette	Acanette	Aspette	Birette	Walette	Hemlette	Larette	Tamrette
Height		4⅝"	5⅛"	6⅛"	8"	10¼"	12½"	14"	16¾"
Diameter		4¼"	3¾"	4⅛"	5"	6⅝"	7½"	8½"	10⅝"
Weight		4 lbs.	4 lbs.	5½ lbs.	10½ lbs.	19 lbs.	32 lbs.	47 lbs.	76 lbs.
Maximum Pressure		125	125	200	200	250	250	250	250
Continuous discharge capacity in lbs. of water per hour at pressures indicated. Lbs. Pressure	5	450	450	840	1560	3000	4600	7600	14,300
	10	560	560	1000	1900	3500	5600	9100	17,200
	15	640	640	1080	2060	3900	6300	10,000	19,000
	20	690	690	890	1800	3100	5900	8500	18,200
	25	460	460	940	1940	3390	6300	9200	20,000
	30	500	500	970	2050	3600	6600	9800	17,600
	40	550	550	780	1700	3450	5700	8400	20,000
	50	600	600	840	1840	3750	6200	8900	18,200
	60	635	635	900	1950	4050	6600	9300	19,600
	70	660	660	940	2030	3700	6100	9200	18,500
	80	690	690	800	1650	3920	6400	9700	19,800
	90	640	640	840	1750	3220	6100	10,100	18,000
	100	650	650	880	1840	3400	6300	10,400	18,500
	125	660	660	960	2040	3880	6700	10,900	20,400
	150	...	...	820	1530	3500	5900	9500	18,600
	200	...	...	900	1680	3200	5400	9500	17,400
	250	...	...	...	...	3500	5700	10,200	19,000

*For greenhouse service a special trap listing at $8.00 can be furnished.

CAUTION! Capacities shown in the table above are actual continuous discharge capacities when handling condensate at steam temperatures. A trap that discharges continuously is obviously too small for the job and hence it is necessary to apply a safety factor when selecting steam traps in order to insure intermittent operation and extra capacity for peak loads.

For most steam trap installations, a safety factor of 2 to 1 is adequate. That is, if the normal load of condensate at a given pressure is 1000 lbs. per hour, the continuous discharge capacity of the trap at this pressure should be 2000 lbs. per hour.

ARMSTRONG MACHINE WORKS

811 Maple Street — Three Rivers, Michigan

Traps, Steam, Water Seal

(Continued from page 278)

Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Kaye & MacDonald, Inc., West Orange, N. J.
McAuley Automatic Trap Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Traps, Vacuum

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Connor, W. B., Engineering Corp., New York, N. Y.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Trays, Barrow

American Steel Scraper Co., Sidney, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Geuder, Paeschke & Frey Co., Milwaukee.
Lansing Co., Lansing, Mich.
Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Treatment, Water, for Boilers

American Sand Banum Co., Inc., New York, N. Y.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Foster Engineering Co., Newark, N. J.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Trench Braces

(See "Braces, Trench and Timber")

Trestles, Extension Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.

Trimmers, Hedge, Electric

Dumore Co., The, Racine, Wis.
Skilsaw, Inc., Chicago, Ill.

Trimmers, Lumber

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Memphis Machine Works, Memphis, Tenn.
United States Machine Co., Williamsport, Pa.

Trimmers, Tree

Bartlett Manufacturing Co., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.
Leach Co., Oshkosh, Wis.

Trimmers, Wood

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Dallett Co., The, Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Perkins & Co., Grand Rapids, Mich.

Tripods, Portable

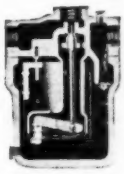
(See "Derricks or Tripods, Portable")

Trippers, Conveying Belt

Chain Belt Co., Milwaukee, Wis.
Fairfield Engineering Co., Marion, Ohio.
Link-Belt Co., Chicago, Ill.

Steam Traps

Experience has proven that there is no one type of trap suitable for all conditions. By manufacturing several types and patterns it is a simple matter to select a Wright-Austin trap of a type and size that is especially adapted to each particular requirement or service, resulting in the highest efficiency available.



"Cub" Type
½" to 1"
0 to 250 lbs.

The "Airxpel," besides satisfying the requirements of those engineers who prefer a Vertical Bucket Type, is a highly efficient, Accessible trap that embodies new and exclusive patented features. A "double duty" steam trap which automatically discharges both air and condensate.

It is made in three patterns.

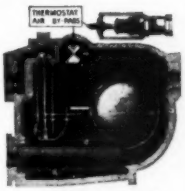
The small Baby and Cub sizes to serve Unit Heaters, Cookers, Chemical Processes, Laundry Equipment, etc.

"Master" Type
½" to 2"
0 to 300 lbs.

The Master sizes for larger capacities and general use in power plant service.

The "Steel" pattern for high pressures up to 700 lbs. is really a work of super excellence.

The "Combination" Trap is a float type of large capacity, having internal thermostatic air bypass and internal strainer. Is so designed that either thermostatic air bypass and strainer may be omitted, or supplied with outside air vent—also water gauge, if desired. Especially satisfactory on all kinds of vacuum heating services, and all pressures up to 125 lbs. Made with special alloy valve and seat and nickel float.

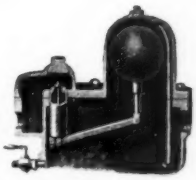


"Combination" Trap
1" to 1¼"
Vacuum to 40 lbs.

"Emergency" Trap
½" to 3"
0 to 250 lbs.

The "Emergency" 3-Valve Trap is a float type, which operates on all pressures from 0 to 200 lbs. without change of valves or any adjustment.

The "Victor" is a low pressure float type for extremely large volumes of condensation at low pressures or vacuum. It is also an excellent oil and grease trap because of its very large valve opening.



"Victor" Trap
½" to 3"
0 to 20 lbs.

Send for Literature

WRIGHT AUSTIN

316 West Woodbridge
DETROIT - - - - - - - - - - MICHIGAN

Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Trolleys, Tracks and Tramways, Overhead

American Steel & Wire Co., Chicago, Ill.
Beaumont, R. H., Co., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Euclid-Armington Corp., Euclid, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton S., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jeffery Manufacturing Co., The, Columbus, Ohio.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
Link-Belt Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Mathews Conveyor Co., Ellwood City, Pa.
Newhall Chain Forge & Iron Co., New York.
Osborn Manufacturing Co., Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Speidel Elevator Corp., Reading, Pa.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., Newcastle, Ind.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Troughs, Grindstone, Cast Iron

Western Products, Inc., Newcastle, Ind.

Trowels

Atkins, E. C., and Co., Indianapolis, Ind.
Atlas-Ansonia Co., New Haven, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Manufacturing Co., Wellsburg, W. Va.
Economy Manufacturing Co., Philadelphia.
Foster Engineering Co., Newark, N. J.
Johnson, William, Inc., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Ohlen-Bishop Co., The, Columbus, Ohio.

Truck Wheel Units

(See "Casters, Truck")

Trucks, Assembly

Angle Steel Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

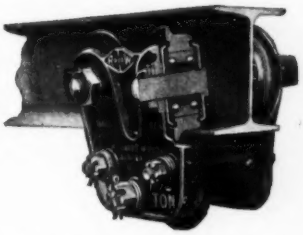
Trucks—Barrel, Bag and Keg

American Pulley Co., The Philadelphia, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Elwell-Parker Electric Co., The, Cleveland.

R-W TROLLEYS

A Complete and Profitable Line

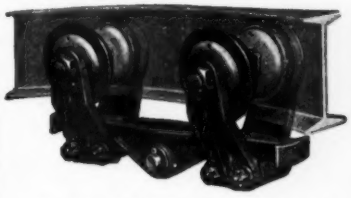
FOR YOU



No. 925 Ball-Bearing Trolley

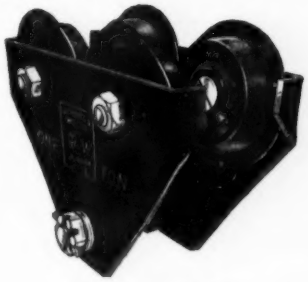
A superior, full ball bearing trolley with chilled tread wheels for loads up to and including four tons capacity.

A production tool where loads must be handled with ease and precision.



The No. 3925 flexible swivel trolley is especially recommended for pushing of loads around short radius curves and for greater ease of operation.

Frames and yokes are made from certified malleable iron. Wheel construction same as No. 925.



Steel Plate Trolleys

A line of Steel Plate Trolleys equipped with ball bearing pressed steel wheels, priced to meet a demand for infrequent service equipment.

It will pay you to investigate the sales and profit possibilities of the R-W line.

Richards-Wilcox Mfg. Co.
A Hanger for any Door that Slides
AURORA, ILLINOIS, U.S.A.

Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Mountville Mfg. Co., Mountville, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Schwenk Safety Device Corp., New York, N. Y. (Also carboy trucks)
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Belt Roll

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co., Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.

Trucks, Box

American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Co., The, Cleveland, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Foster Engineering Co., Newark, N. J.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis, G. B., Co., Watertown, Wis.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Cargo

(See "Trucks, Railroad and Cargo")

Trucks, Core

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland.
Palmer-Bee Co., Detroit, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Die and Tool

Angle Steel Stool Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Pollard Bros. Mfg. Co., Chicago, Ill.
Service Caster & Truck Co., The, Albion, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Dolly

American Car and Foundry Co., New York, N. Y.
Angle Steel Stool Co., Plainwell, Mich.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Dixie Logging Tool Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., Hamilton, O.
Heller, W. C., Co., Montpelier, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Leach Co., Oshkosh, Wis.
Lewis-Shepard Co., Boston, Mass.
Marion Malleable Iron Works, Marion, Ind.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Service Caster & Truck Co., The, Albion, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stimmel Winch Co., Long Island City, N. Y.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Dry Kiln

Allis-Chalmers Manufacturing Co., West Allis, Wis.
American Car and Foundry Co., New York, N. Y.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Grand Rapids Vapor Kiln, Inc., Grand Rapids, Mich.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
National Dry Kiln Co., The, Indianapolis, Ind.
Palmer-Bee Co., Detroit, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Dumping

American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Nutting Truck Co., Faribault, Minn.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Factory and Mill

American Car & Foundry Co., New York.
American Pulley Co., The, Philadelphia.

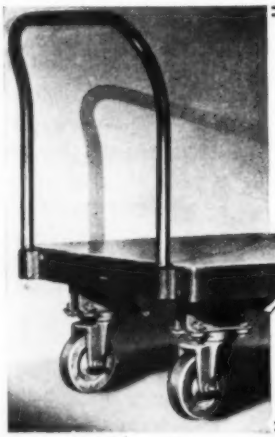
HAMILTON

Warehouse Trucks

Four Wheel and Two Wheel, Steel or Wood, Metal or Rubber Tired Wheels.

THE HAMILTON CASTER & MFG. CO.
HAMILTON, OHIO

Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chapman Bearing & Engineering Co., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co., Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Heller, W. C., & Co., Montpelier, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis, G. B., Co., Watertown, Wis.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Lupton's, David, Sons Co., Philadelphia.
McElmoyl, W. J., Co., Inc., Groveville, N. J.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
National Scale Corp., Chicopee Falls, Mass.
Nutting Truck Co., Faribault, Minn.
Oliver Machinery Co., Grand Rapids, Mich.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.



The Ace of Casters and the **QUEEN o' TRUCKS**

The great sales combination: Push E-Z with Service Casters, recognized queen of the floor for its stately action, yet always able to throw dignity to the winds and outrun anything else pushed under a load. Preserves floors, too, by its smooth friction-free glide. (See the Ace of Casters, under "Casters"). And the Push E-Z is only representative of an impressive variety of modern trucks.

Ask About Them

Capacities in 3 styles of 4, 5 and 6,000 lbs. Five sizes each. Service casters and wheels. Wheels all 'round of Textolite (a G. E. Product) give maximum floor saving action under heaviest loads.

SERVICE CASTER & TRUCK CO., 529 N. Albion St., ALBION, MICH.

ORANGEVILLE TRUCKS

"Make heavy loads light and light loads lighter"

Orangeville trucks are designed for quality and service. All types for factory and warehouse service are available, and special trucks built to order. The truck illustrated is for all-around use in store, factory, or warehouse.

Inquiries receive prompt service. Catalogue illustrating complete line of Standard Trucks will be gladly sent on request.

ORANGEVILLE MFG. CO.
ORANGEVILLE, PENNSYLVANIA

Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Wolverine Caster Co., The, Traverse City, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks and Tractors, Factory, Electric

Barrett-Cravens Co., Chicago, Ill.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Lansing Co., Lansing, Mich.
Maris Brothers, Inc., Philadelphia, Pa.
Market Forge Co., Everett, Mass.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks and Tractors, Factory, Gasoline

Allis-Chalmers Manufacturing Co., West Allis, Wis. (Tractors only).
Barrett-Cravens Co., Chicago, Ill.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Factory, for Moving Iron, Steel, Pipe, Etc.

American Car & Foundry Co., New York.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Factory, Transfer or Elevator

Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Revolvator Co., North Bergen, N. J.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Foundry

American Car & Foundry Co., New York.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., Columbus, O.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Grain

American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Clark, Geo. P., Co., Windsor Locks, Conn.
Colson Corp., The, Elyria, Ohio.
Fairbanks Co., The, New York, N. Y.

TRADE YALE MARK HAND LIFT TRUCKS

Stuebing Line

Blue Streak Hand Lift Trucks. Single Stroke, 2,500 lbs. Capacity.

Yale Steel-Bound Platforms.

Multi-Stroke Hand Lift Trucks. Capacities up to 20,000 lbs.

Yale Lift Trucks are made in eight models to meet every requirement of industry. Capacities from 1,000 lbs. to 20,000 lbs. single and multiple lift types.

Easy steering, easy rolling, easy lift, hydraulic safety check and other famous Yale features are standard in every truck — and each is guaranteed against defects regardless of years of service. Skid platforms in many varieties to hold all kinds of materials.

Illustrated folders on request

THE YALE & TOWNE MFG. CO.
PHILADELPHIA DIVISION, PHILADELPHIA, PA., U. S. A.
Makers of Yale Hand Chain Hoists, Electric Hoists, Trolleys and Allied Equipment

Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Lift

(See "Trucks, Factory, Transfer or Elevator")

Trucks, Log

American Car and Foundry Co., New York.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.

Trucks and Buggies, Lumber

Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Trucks, Paper Roll

American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Marion Malleable Iron Works, Marion, Ind.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Revolvator Co., North Bergen, N. J.
Sabin Machine Co., Cleveland, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Railroad and Cargo

American Car & Foundry Co., New York.
American Pulley Co., The, Philadelphia, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Scoop

American Car & Foundry Co., New York.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Trucks, Steel Box

American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Colson Corp., The, Elyria, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Warehouse

Advance Car Mover, Inc., Appleton, Wis.
American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Case Crane & Kilbourne Jacobs Co., The, Columbus, Ohio.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Colson Corp., The, Elyria, Ohio.
Continental-Diamond Fibre Co., Newark.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McElmoyl, W. J., Co., Inc., Groveville, N. J.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Orangeville Mfg. Co., Orangeville, Pa.
Palmer-Bee Co., Detroit, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel)
Revolvator Co., North Bergen, N. J.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Welding

(See "Carriages and Trucks, Cutting and Welding")

Trycocks

(See "Columns, Water")

Tubes, Boiler

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bay State Stamping Co., Worcester, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Detroit Seamless Steel Tubes Co., Detroit, Mich.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y.
Farquhar, A. B., Co., Ltd., York, Pa.
Gerard Mfg. Co., Dickson City, Pa. (Range boiler tubes)
Globe Steel Tubes Co., Milwaukee, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Pancoast, Henry B., Co., Philadelphia, Pa.
Reading Iron Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Steel and Tubes, Inc., Cleveland, Ohio.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubes, Condenser

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Detroit Seamless Steel Tubes Co., Detroit.
Frasse, Peter A., & Co., Inc., New York.
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.
Wolverine Tube Co., Detroit, Mich.

Tubes, Hose Mender

Goodall Rubber Co., Philadelphia, Pa.

Tubes, Superheater

Detroit Seamless Steel Tubes Co., Detroit, Mich.
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
National Tube Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.

Tubing, Aluminum

Imperial Brass Mfg. Co., Chicago, Ill.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Asbestos

Crandall Packing Co., Palmyra, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Tubing—Brass, Bronze and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Bristol Brass Corp., The, Bristol, Conn.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa. (Copper only)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Copper & Smelting Co., Cleveland, Ohio.
Parker Appliance Co., The, Cleveland, O.
Penn Brass & Copper Co., Erie, Pa.

WOLVERINE DEOXIDIZED COPPER WATER TUBE

For Air Conditioning Work
Commercial Refrigeration
Oil Burner Installations
Underground Water Services
General Plumbing and Heating

Every Length stamped "Wolverine" and the Type "K," "L" or "M" as your guarantee of compliance with A.S.T.M. and Federal Specifications WW-T-799 and B68-33.

Type K in sizes up to 2" nominal approved by Underwriters Laboratory and stamped Wolverine Type "K."

Cast Bronze Fittings soldered and flared type.

Large Stocks for Quick Shipment.

WOLVERINE TUBE COMPANY
Seamless Copper, Brass, Aluminum
1451 Central Ave. Detroit, Mich.

Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Titeflex Metal Hose Corp., Newark, N. J.
Wells, A. H., & Co., Inc., Waterbury, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Gasket

Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Jenkins Bros., New York, N. Y.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
National Lead Co., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.

Tubing, Glass

Basche, Semon, & Co., New York, N. Y.
Essex Brass Corp., Detroit, Mich.
Friedrich & Dimmock, Millville, N. J.

Tubing, Lead, Small Sizes

Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
U. S. Indestructible Gasket Co., Brooklyn.

Tubing, Metallic, Flexible

(See "Hose or Tubing, Metallic, Flexible")

Tubing, Oil Well

Detroit Seamless Steel Tubes Co., Detroit.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Titeflex Metal Hose Corp., Newark, N. J.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubing, Refrigeration

(See "Refrigeration Specialties")

Tubing, Rubber

Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.

Tubing, Steel

Breeze Corporations, Inc., Newark, N. J.
Cleveland Graphite Bronze Co., The, Cleveland, Ohio.
Detroit Seamless Steel Tubes Co., Detroit.
Frasse, Peter A., & Co., Inc., New York.
Fretz-Moon Tube Co., The, East Butler, Pa.
Globe Steel Tubes Co., Milwaukee, Wis.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Mark, Clayton, & Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.
Parker Appliance Co., The, Cleveland, O.

IMPERIAL DUAL-ANNEALED COPPER TUBING

For Automotive and General Use

Imperial Seamless Soft Copper Tubing is bright annealed and cold drawn to size from the best quality of copper.
Is of uniform temper, having smooth exterior and interior surfaces, is free from scale, seams, slivers and other finishing defects.
Furnished in attractive colored cartons, packed 25 foot coil to a carton.

IMPERIAL BRASS MANUFACTURING CO.
511 So. RACINE AVE. CHICAGO, ILL.

Sandvik Steel, Inc., New York, N. Y.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.) Cleveland, Ohio.
Titeflex Metal Hose Co., Newark, N. J.
Toledo Steel Tube Co., The, Toledo, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubs, Mortar

Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Turbines, Steam

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Coppus Engineering Corp., Worcester, Mass.
Dean-Hill Pump Co., Anderson, Ind.
DeLaval Steam Turbine Co., Trenton, N. J.
Fitz Water Wheel Co., The, Hanover, Pa.
General Electric Co., Schenectady, N. Y.
Moore Steam Turbine Corp., Wellsville, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Pomona Pump Co., Pomona, Calif.
Sturtevant, B. F., Co., Boston, Mass.

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

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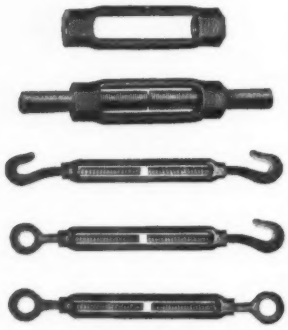
UMI

TURNBUCKLES
DROP FORGED



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JAW and JAW or JAW and EYE

A COMPLETE LINE
IN ALL DIAMETERS AND LENGTH OF OPENING

SEND FOR
CATALOG
ILLUSTRATING OUR COMPLETE LINE OF
STEEL PRODUCTS

The Upson-Walton Co.
1306 WEST 11TH ST., CLEVELAND, OHIO
Established 1871

Turnbuckles

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Boekel, Wm., & Co., Philadelphia, Pa.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Columbus Bolt Works Co., The, Columbus, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Harper, H. M., Co., Chicago, Ill.
Laughlin, Thos. Co., The, Portland, Maine.
McMillan's, W. H., Sons, New York, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mockbee, C. M., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co., New York, N. Y.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Republic Steel Corp., Cleveland, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J. (Wire rope)
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Div., Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Turners, Log, for Sawmills

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Memphis Machine Works, Memphis, Tenn.

Turntables, Automobile and Industrial Railway

American Car & Foundry Co., New York.
Canton Foundry & Machine Co., The, Canton, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.

Turntables, Overhead

Harrington Co., The, Philadelphia, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Twine

American Manufacturing Co., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Samson Cordage Works, Boston, Mass.
Wall Rope Works, Inc., New York, N. Y.

Twine, Asbestos

(See "Yarn and Twine, Asbestos")

Unions, Air Pump

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Fairbanks Co., The, New York, N. Y.
Jefferson Union Co., Lexington, Mass.
Walworth Co., New York, N. Y.

Unions, Ball Joint

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Lockport Fittings Co., Inc., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Standard Union Co., Lockport, N. Y.
Walworth Co., New York, N. Y.

Unions, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Darling Valve & Mfg. Co., Williamsport, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Hays Manufacturing Co., Erie, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
King Union Co., Inc., Hillsgrove, R. I.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Ralco Manufacturing Co., Chicago, Ill.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, Franklin, Inc., Orange, N. J.

Unions, Brazing

Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Richardson, Edro, Brass Co., The, Baltimore, Md.

Unions, Cast Iron

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Crane Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Filer & Stowell Co., The, Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury Manufacturing Co., Monroe, N. Y.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Unions, Flange

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Chase Brass & Copper Co., Waterbury, Conn.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kuhns Bros. Co., Dayton, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Flange, Extra Heavy

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Flared

Chase Brass & Copper Co., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Unions, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jefferson Union Co., Lexington, Mass.

(Continued on page 288)

Fig. 0832
Female

DART UNIONS BRONZE-TO-BRONZE

Dart Union Fittings (Bronze-To-Bronze)

Dart Union Fittings are made from heavy high-grade malleable iron castings, have extra strong shoulders on the swivel ends and in the nuts and TWO BRONZE SEATS which are accurately machined and carefully ground, giving double protection to the joint.

Recommended for 300-lb. w.s.p. sizes 1/8 inch to 2 inch, inclusive; 2½ in. to 4 in.—250 lb. w.s.p., where temperature is not in excess of 450 degrees Fahrenheit.

Dart Female Union

This style sent when not otherwise specified

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3	3½	4
Fig. 0832—Plain List	$0.38	$0.30	$0.40	$0.50	$0.60	$0.80	$1.20	$1.60	$2.00	$4.00	$6.00	$ 9.00	$13.50
Fig. 0832—Galv List	.48	.38	.51	.64	.77	1.02	1.53	2.04	2.55	5.10	7.64	11.47	17.20

Adapted to high or low pressure; for steam, gas, water or air.

Fig. 0834
Female

Union Elbow

This type is adapted to use wherever a union is desired near an elbow. It gives a neat, close connection, saving both labor and fittings.

Size, inches	1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3
Fig. 0834—Plain List	$0.52	$0.70	$0.87	$1.05	$1.40	$2.10	$2.80	$3.49	$5.59	$ 8.38
Fig. 0834—Galv List	.68	.91	1.14	1.36	1.82	2.73	3.63	4.54	7.27	10.90
Fig. 0835—Plain List	.52	.70	.87	1.05	1.40	2.10	2.80	3.49	5.59	8.38
Fig. 0835—Galv List	.68	.91	1.14	1.36	1.82	2.73	3.63	4.54	7.27	10.90

Fig. 0835
Male and Female

Fig. 0836
Female

Tee Union on the Outlet

Figure 0836—Female. Figure 0837—Male and Female

Size, inches	1/4	3/8	1/2	3/4	1	1¼	1½	2
Fig. 0836—Plain List	$0.58	$0.77	$0.96	$1.15	$1.54	$2.31	$3.08	$3.84
Fig. 0836—Galv List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00
Fig. 0837—Plain List	.58	.77	.96	1.15	1.54	2.31	3.08	3.84
Fig. 0837—Galv List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00

Fig. 0837
Male and Female

Tee Union on the Run

Figure 0838—Female. Figure 0839—Male and Female

Size, inches	1/4	3/8	1/2	3/4	1	1¼	1½	2
Fig. 0838—Plain List	$0.58	$0.77	$0.96	$1.15	$1.54	$2.31	$3.08	$3.84
Fig. 0838—Galv List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00
Fig. 0839—Plain List	.58	.77	.96	1.15	1.54	2.31	3.08	3.84
Fig. 0839—Galv List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00

Fig. 0838
Female

Male and Female Union—Air Pump Union

Use these fittings instead of a union and a nipple.

Size, inches	1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3
Fig. 0840—Plain List	$0.44	$0.58	$0.73	$0.87	$1.16	$1.75	$2.33	$2.91	$4.66	$6.99
Fig. 0840—Galv List	.57	.76	.95	1.14	1.51	2.27	3.03	3.79	6.06	9.09

Size, inches	¾x1	1x1¼	1¼x1½	1½x2
Fig. 0841—Plain List	$1.05	$1.40	$2.10	$2.80
Fig. 0841—Galv List	1.36	1.82	2.73	3.63

Fig. 0839
Male and Female

All Iron Union

For use on lines such as acid, chemicals, etc., where the bronze seated union is not desirable.

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1¼	1½	2
Fig. 0844—Plain List	$0.38	$0.30	$0.40	$0.50	$0.60	$0.80	$1.20	$1.60	$2.00

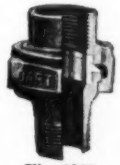

Fig. 0840
Male and Female

Regular Flange Union—Cast Iron

Size, inches	1/2	3/4	1	1¼	1½	2	2½	3	3½
Fig. 0833—Plain List	$0.88	$0.96	$1.28	$1.93	$2.57	$3.21	$5.13	$ 7.69	$ 9.62
Fig. 0833—Galv List	1.19	1.30	1.73	2.60	3.46	4.33	6.92	10.39	12.98

Size, inches	4	4½	5	6	7	8	9	10	12
Fig. 0833—Plain List	$12.02	$14.03	$16.03	$20.04	$24.04	$28.85	$34.62	$46.16	$73.73
Fig. 0833—Galv List	16.23	18.93	21.64	27.05	32.46	38.95	46.74	62.32	99.53

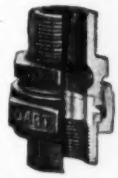

Fig. 0841
Air Pump

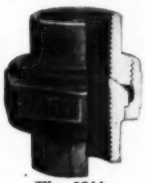

Fig. 0844
All Iron

All flanges furnished with bolts and nuts. Flanges made with special threads when required.

Extra Heavy Flange Union—Cast Iron

Size, inches	1½	2	2½	3	4	6	8
Fig. 0833—Plain List	$3.42	$4.27	$6.84	$10.26	$16.03	$26.71	$53.37
Fig. 0833—Galv List	4.62	5.77	9.23	13.85	21.64	36.06	72.12

Fig. 0833

E. M. DART MFG. CO. Thurbers Ave.—Eddy St. PROVIDENCE, R. I.

General Distributors: The FAIRBANKS COMPANY, 393-399 Lafayette St., New York, N. Y.
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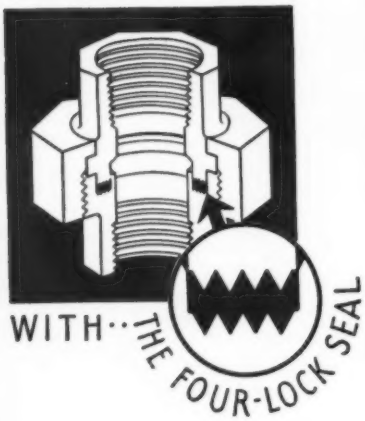

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(Continued from page 286)

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Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

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Corley Co., The, Jersey City, N. J.
Corley-DeWolfe Co., Elizabeth, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
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Illinois Malleable Iron Co., Chicago, Ill.
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King Union Co., Inc., Hillsgrove, R. I.
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Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Standard Union Co., Lockport, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
United Superior Union Co., Inc., Brooklyn.
Walworth Co., New York, N. Y.

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Devlin, Thos., Mfg. Co., Burlington, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Walworth Co., New York, N. Y.

Unions, Malleable, Railroad

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Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
King Union Co., Inc., Hillsgrove, R. I.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Walworth Co., New York, N. Y.

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Commonwealth Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

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Mulconroy Co., Inc., Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
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Walworth Co., New York, N. Y.

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Kerotest Manufacturing Co., Pittsburgh.
Parker Appliance Co., The, Cleveland, O.
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Rockwood Sprinkler Co., Worcester, Mass.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Steel, Pressed

Keating, E. F., Co., New York, N. Y.

Unions, Swing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.

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H. D. B. Corporation, Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.

Unloaders, Car

Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Tubing & Braiding Co., Maywood, Ill.
Fairfield Engineering Co., Marion, Ohio.
Godfrey Conveyor Co., Elkhart, Ind.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sutorbilt Corp., Los Angeles, Calif.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Valve Housings

(See "Housings, Valve")

Valve Reseating Tools

(See "Reseating Tools, Valve and Bibb")

Valve Wheels

(See "Wheels, Valve")

Valves, Acid Resisting

(See "Valves, Special Metal")

Valves, Air Gun

American Injector Co., Detroit, Mich.
Cleveland Rock Drill Co., The, Cleveland.
Essex Brass Corp., Detroit, Mich.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Brass Co., Mansfield, Ohio.
Page Belting Co., Concord, N. H.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
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Williams, D. T., Valve Co., The, Cincinnati, Ohio.

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Figure 1000

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Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
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Edward Valve & Mfg. Co., The, East Chicago, Ind.
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Fisher Governor Co., The, Marshalltown, Iowa.
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Knox Mfg. Co., Philadelphia, Pa.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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Marco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
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Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
R. S. Products Corp., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Air, Radiator

Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
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(Continued on page 290)

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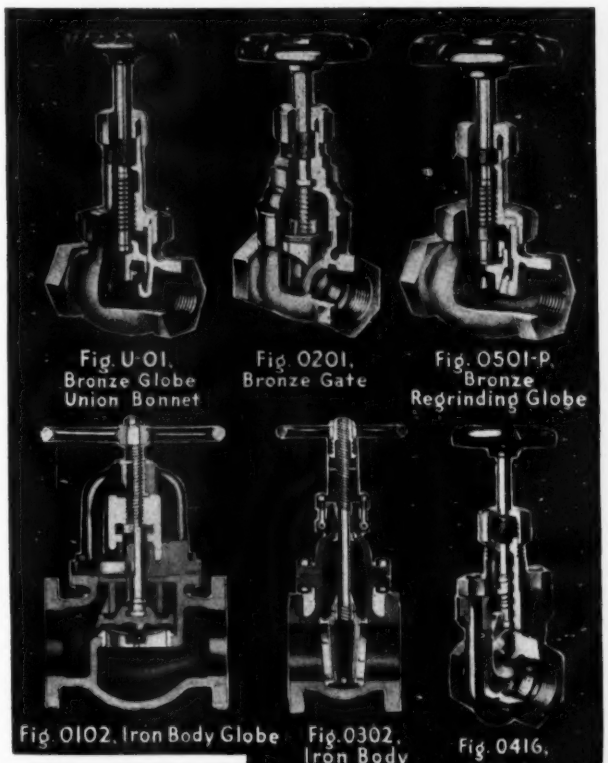

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Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
United States Air Compressor Co., Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.

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Fisher Governor Co., The, Marshalltown, Iowa.
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Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
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Wright-Austin Co., Detroit, Mich.

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Foster Engineering Co., Newark, N. J.
Kieley & Mueller, Inc., New York, N. Y.
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Mason Regulator Co., Boston, Mass.
Schade Valve Mfg. Co., Philadelphia, Pa.

Valves, American Water Works Association Standard

American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
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Fairbanks Co., The, New York, N. Y.
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Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
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Marsh, Jas. P., & Co., Chicago, Ill.
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Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

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Foster Engineering Co., Newark, N. J.
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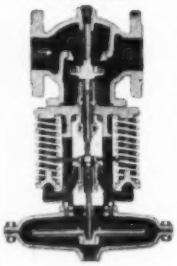

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Detroit Lubricator Co., Detroit, Mich.
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Fairbanks Co., The, New York, N. Y.
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Hennebohle, Frank, Chicago, Ill.
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Keckley, O. C., Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.
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Tessmer Machine & Tool Co., Detroit, Mich.
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Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Leiman Bros., Inc., Newark, N. J.
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Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
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Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Elkhart Brass Mfg. Co., Elkhart, Ind. (Angle and gate)
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y. (Angle and globe, bronze)
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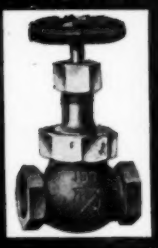
Mark, Clayton, & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Moak Machine & Tool Co., Port Huron, Mich.
Morrison Bros., Dubuque, Iowa.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.

KENNEDY
Bronze Valves



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Angle
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Scott Valve Manufacturing Co., Detroit, Mich.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, William E., Valve Corp., New York, N. Y.

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American Injector Co., Detroit, Mich.
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Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Gorton Heating Corp., Cranford, N. J.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., Cleveland, Ohio.
Scott Valve Manufacturing Co., Detroit, Mich.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Triumph Brass Co., Columbus, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Butterfly

Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Hoppes Water Wheel Co., The, Springfield, Ohio.
Keating, E. F., Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, By-Pass

American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Morganmade, Inc., Keene, N. H.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Cast Iron or Semi-Steel—Globe, Gate, Angle and Check

American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa. (Globe, angle and check)
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Trill Indicator Co., Corry, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Cast Iron, Non-Return, or Stop and Check

American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio
M & H Valve & Fittings Co., Anniston, Ala.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

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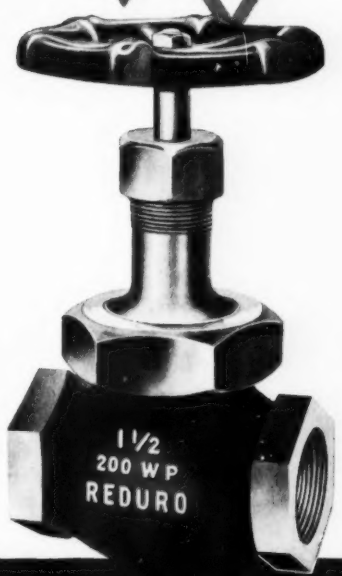
P&C CO R



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for Industrial Plants, Mills and Factories, Special Process Plants, Water Supply Systems, Fire Protection Systems, Heating Systems, etc.
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ELMIRA, N.Y.
WAREHOUSES IN PRINCIPAL CITIES

Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Check, Air

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Foster Engineering Co., Newark, N. J.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
H. D. B. Corporation, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Scott Valve Manufacturing Co., Detroit.
Trill Indicator Co., Corry, Pa.
United States Air Compressor Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams Gauge Co., The, N. S., Pittsburgh.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Check, Locomotive Line

Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Walworth Co., New York, N. Y.

Valves, Check, Vertical

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mark, Clayton, & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Ohio Brass Co., Mansfield, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Rickersberg Brass Co., The, Cleveland, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.

Valves, Choke, Oil Line

Walworth Co., New York, N. Y.

Valves, Chronometer

Fisher Governor Co., The, Marshalltown, Iowa.
Judson Governor Co., The, Rochester, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit, Mich.

Valves, Coke Oven

American Car and Foundry Co., New York, N. Y.
Bartlett Hayward Co., The, Baltimore, Md.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Merco Nordstrom Valve Co., San Francisco, Calif.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati Ohio.

Valves, Controlling, Waterworks Supply

American Chain Co., Inc., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Hays Manufacturing Co., Erie, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Cross, Brass and Bronze

Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fititngs Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Cross, Iron Body

Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Dry Pipe and Check, for Sprinkler Systems

Central Automatic Sprinkler Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Hersey Manufacturing Co., Boston, Mass.
Jenkins Bros., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Valves, Electric Motor Operated

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Exhaust Relief, Automatic

Bastian-Morley Co., LaPorte, Ind.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kennedy Valve Manufacturing Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Sutorbilt Corp., Los Angeles, Calif.
Walworth Co., New York, N. Y.

Valves, Extra Heavy, for High Pressures

American Chain Co., Inc., Bridgeport, Conn.
Axelson Manufacturing Co., Ltd., Los Angles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Central Valve Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hays Manufacturing Co., Erie, Pa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Portland Co., The, Portland, Me.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sargent Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Fire Line

Allen, W. D., Mfg. Co., Chicago, Ill.
American Chain Co., Inc., Bridgeport, Conn.
American Valve Co., Long Island City, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.

Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co.. Inc., Bridgeport, Conn.
Safety Fire Extinguisher Co., The, New York, N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Valves, Flap and Shear

Clow, James B., & Sons, Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
South Park Foundry & Machine Co., South St. Paul, Minn.

Valves, Float

Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mark, Clayton, & Co., Chicago, Ill.
Midland Mfg. Co., Ft. Worth, Tex.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Roots-Connersville Blower Corp., Connersville, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Valves, Foot, and Strainers

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Decatur Pump Co., Decatur, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mark, Clayton, & Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Ohio Brass Co., Mansfield, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Gas Gate

American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Valves, Gas, Natural

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.

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VALVES
Bronze, Iron, Steel; Globe, Angle, Cross, Check, Gate, Throttle, Non-return, Blow-off, Pop Safety, Relief, Lubricated, Whistle, etc.

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Non-return, Pop Safety and Blow-off Valves; Water Columns, Water Gauges and Gauge Cocks, Low Water Alarms, Fusible Plugs.

LUBRICATORS
For Steam, Gas, Gasoline, Oil, Compressor and Pump Cylinders; Gravity Feed or Hydrostatic.

OIL & GREASE CUPS
Glass, Bronze or Aluminum Body Oil Cups; Bottle Oilers; "Alvor" Constant Level Oil Controls; Automatic Feed, Cap or Plunger Screw Feed Grease Cups of Bronze, Iron or Steel.

ALSO COCKS, UNIONS, WHISTLES, AIR DEVICES, ETC.

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Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Star Drilling Machine Co., Akron, Ohio.
Walworth Co., New York, N. Y.

Valves, Gas Plant

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Bartlett Hayward Co., The, Baltimore, Md.
Bastian-Blessing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Company, The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Gas Regulating

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
R. S. Products Corp., Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Valves, Gas Relief

Bastian-Blessing Co., Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gasoline

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gate, Swing

Kennedy Valve Mfg. Co., Elmira, N. Y.

Valves, Gate, Waterworks

American Chain Co., Inc., Bridgeport, Conn.
American Foundry & Mfg. Co., St. Louis.
Bordo, L. J., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich. (Gate only)
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Gear Controlled

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Globe, Lock and Shield

American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hard Rubber

Cincinnati Rubber Mfg. Co., The, Cincinnati, Ohio.
Darcoid Co., Inc., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Union Rubber & Asbestos Co., Trenton, N. J.

Valves, High Pressure, for Oxygen and Carbonic Acid Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York.
Kerotest Manufacturing Co., Pittsburgh.
Linde Air Products, Inc., The, New York.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Darling Valve & Mfg. Co., Williamsport, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Scott Valve Manufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hydrant

Bordo, L. J., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dick, R. & J., Co., Inc., Passaic, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Home Rubber Co., Trenton, N. J.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mueller Co., Decatur, Ill.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Hydraulic—Gate, Globe, Angle and Check

American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa. (Globe, angle and check)
Brunswick-Kroeschell Co., New Brunswick, N. J.
Cardwell Machine Co., The, Richmond, Va.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.

Darling Valve & Mfg. Co., Williamsport, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill. (Check valves only)
Lourie Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Hydraulically Operated

American Chain Co., Inc., Bridgeport, Conn.
Bartlett Hayward Co., The, Baltimore, Md.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown Iowa.
Foster Engineering Co., Newark, N. J.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Indicator

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Robertson, James L., & Sons, New York.
Walworth Co., New York, N. Y.

Valves, Inlet, Packless

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Everlasting Valve Co., Jersey City, N. J.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.

Valves and Fittings, Irrigation

Illinois Malleable Iron Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.

Valves, Lead and Lead Lined

National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Schutte & Koerting Co., Philadelphia, Pa.

Valves, Locking

Bordo, L. J., Co., Inc., Glenside, Pa.
Everlasting Valve Co., Jersey City, N. J.
Hays Manufacturing Co., Erie, Pa.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Lubricated

American Chain Co., Inc., Bridgeport, Conn.
American Car and Foundry Co., New York, N. Y.
Barco Manufacturing Co., Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Valves, Marine

American Chain Co., Inc., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Perkins Marine Lamp Corp., Brooklyn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Mixing

(See "Cocks and Valves, Mixing")

Valves, Needle

American Chain Co., Inc., Bridgeport, Conn.
Bastian-Blessing Co., Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Non-Metallic Disc—Globe, Angle, Check and Quick Operating

(See also "Valves, Brass or Bronze—Renewable Composition Disc" and "Valves, Quick Opening and Closing")

American Chain Co., Inc., Bridgeport, Conn.
Hunt, C. B., & Son, Salem, Ohio.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Valves, Offset

Bastian-Blessing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves for Oil Burning Furnaces

Bastian-Blessing Co., Chicago, Ill.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., New York, N. Y.
Gorton Heating Corp., Cranford, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Haydenville Co., The, Haydenville, Mass.
Imperial Brass Mfg. Co., Chicago.

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DETROIT, MICH.

Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Walworth Co., New York, N. Y.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Plug

(See "Cocks, Plug")

Valves, Plug Type, Globe and Angle

American Chain Co., Inc., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Mfg. Co., Detroit, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Pop Safety

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Consolidated Brass Co., Detroit.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
H. D. B. Corporation, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago.
Walworth Co., New York, N. Y.

Valves, Pressure Reducing and Regulating

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.

UMI

Davis Regulator Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Hannifin Manufacturing Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parker Appliance Co., The, Cleveland, O.
Penberthy Injector Co., Detroit, Mich.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Simplex Spray Equipment Co., Chicago.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Watts Regulator Co., Lawrence, Mass.

Valves, Pump—Leather, Rubber, Fibre and Composition

Belmont Packing & Rubber Co., Philadelphia, Pa.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Cook, H. N., Belting Co., San Francisco.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mark, Clayton, & Co., Chicago, Ill.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Leather Packing Co., Detroit.
New York Belting & Packing Co., Passaic, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Perkins Marine Lamp Corp., Brooklyn, N. Y.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)

PUMP VALVES

Standard, general utility grades.

Special qualities made to customer specifications.

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*See VEELOS Belting Advertisements, pages 34, 41.

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Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Walworth Co., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams Gauge Co., The, N. S. Pittsburgh.

Valves, Pump Regulating

Brown & Sharpe Mfg. Co., Providence, R. I.
Burrows, F. A., Co., York, Pa.
Cardwell Machine Co., The, Richmond, Va.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Perkins Marine Lamp Corp., Brooklyn.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., The, New York, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Quick Opening and Closing

American Car and Foundry Co., New York, N. Y.
American Chain Co., Inc., Bridgeport, Conn.
Bordo, L. J., Co., Inc., Glenside, Pa.
Briggs & Stratton Corp., Milwaukee, Wis.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Gorton Heating Corp., Cranford, N. J.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh Valve Co., Dunkirk, N. Y.
Merco Nordstrom Valve Co., San Francisco.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm. Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, Radiator, Air, Automatic

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Chase Brass & Copper Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Valves, Radiator, Graduated

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Sarco Co., Inc., New York, N. Y.
Walworth Co., New York, N. Y.

Valves, Radiator, Packless

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.

Valves, Radiator, Steam

American Chain Co., Inc., Bridgeport, Conn.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Reducing-Steam, Air and Hydraulic

(See "Valves, Pressure Reducing and Regulating")

Valves, Relief

Automatic Primer Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bastian-Morley Co., LaPorte, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.

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Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Morganmade, Inc., Keene, N. H.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sight Feed Generator Co., Richmond, Ind.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Sutorbilt Corp., Los Angeles, Calif.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Safety, Shut-Off

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N .Y.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Scott Valve Manufacturing Co., Detroit.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Safety, for Welding Equipment

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Sight Feed Generator Co., Richmond, Ind.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.

Valves, Semi-Steel—Globe, Gate, Angle and Check

(See "Valves, Cast Iron or Semi-Steel—Globe, Gate, Angle and Check")

Valves, Siamese

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.

Valves, Sluice

Clow, James B., & Sons, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Valves, Solenoid

Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Edward Valve Mfg. Co., East Chicago, Ind.
Essex Brass Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Hannifin Manufacturing Co., Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Michigan Smelting & Refining Co., Detroit.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
R. S. Products Corp., Philadelphia, Pa.

Valves, Special Metal

Ampco Metal, Inc., Milwaukee, Wis.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Lead Co., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Standpipe

Allen, W. D., Mfg. Co., Chicago, Ill.
American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Steam Feed, Sawmill

Allis-Chalmers Manufacturing Co., West Allis, Wis.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.

Valves, Steel, Cast—Globe, Gate, Angle and Check

American Chain Co., Inc., Bridgeport, Conn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

For
"Trade Names"
Which Differ
from
The Company Name
See the
"Trade Name Index"

"Trade Names"
Are Not Shown in
the
"Trade Name Index"
Where They Are the Same as the Company's Name or Where the Company's Name Constitutes the First Part of the Trade Name.

If you do not find a trade name in the "Trade Name Index," look for the company's name under the product heading

Valves, Steel, Forged—Globe, Gate, Angle and Check

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Stop, Emergency

Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Everlasting Valve Co., Jersey City, N. J.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, Thermostatic

American Injector Co., Detroit, Mich.
Bastian-Morley Co., LaPorte, Ind.
Bristol Co., The, Waterbury, Conn.
Crane Co., Chicago, Ill.
Gorton Heating Corp., Cranford, N. J.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.

Valves, 3-Way and 4-Way

American Car and Foundry Co., New York, N. Y.
American Chain Co., Inc., Bridgeport, Conn.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hannifin Manufacturing Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa. (3-way only)
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Nicholson, W. H., & Co., Wilkes-Barre, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Ruemelin Mfg. Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa. (Hydraulic operating)
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Throttle

American Chain Co., Inc., Bridgeport, Conn.
Clow, James B., & Sons, Chicago, Ill.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Klingerit, Inc., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Underwriters'

Allen, W. D., Mfg. Co., Chicago, Ill.
American Chain Co., Inc., Bridgeport, Conn.
American Valve Co., Long Island City, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Safety Fire Extinguisher Co., The, New York, N. Y.
Walworth Co., New York, N. Y.

Valves, Vacuum

American Car and Foundry Co., New York, N. Y.
American Chain Co., Inc., Bridgeport, Conn.
Belfield, H., Co., Philadelphia, Pa.
Detroit Lubricator Co., Detroit, Mich.
Efficiency Engineering Co., Boston, Mass.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Leiman Bros., Inc., Newark, N. J.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas P., & Co., Chicago, Ill.
Merco Nordstrom Valve Co., San Francisco.
Milwaukee Valve Co., Milwaukee, Wis.
New York Brass Foundry Co., New York.
Oil Conservation Engineering Co., The, Cleveland, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville Blower Corp., Connersville, Ind.

Valves, Whistle

General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Y

Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co, The, Cincinnati.

Variable Speed Transmissions

(See "Transmissions, Variable Speed")

Varnishes

Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Horn, A. C., Co., Long Island City, N. Y.
Rinald, H., Co., W. Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence.
Vita-Var Corp., Newark, N. J.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Vise and Anvil Combined

(See "Anvil and Vise Combined")

Vise, Anvil and Drill Combined

(See "Anvil, Vise and Drill Combined")

Vise Jaws

(See "Jaws, Vise")

Vise Mounts

(See "Mounts, Vise")

Vise—Square End Sawing for Tubing

Beaver Pipe Tools, Inc., Warren, Ohio.
Trimont Mfg. Co., Inc., Roxbury, Boston.

Vises, Bench

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago, Ill.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morgan Vise Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wallace, J. D., & Co., Chicago, Ill.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Blacksmiths' and Solid Box

(See "Vises, Solid Box")

Vises, Carpenters'

(See "Vises, Woodworkers'")

Vises, Clamp Base

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Luther Grinder & Tool Co., Milwaukee.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises—Drill Press, Miller, Planer and Shaper

Armstrong-Blum Mfg. Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.

(Continued on page 300)

YOST
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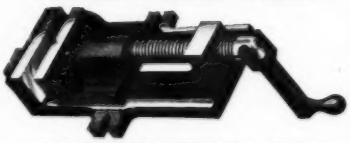
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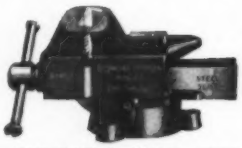
SELL SIMPLEX STEEL SLIDE VISES

Simplex Vises are stronger and more serviceable than ordinary vises — yet they cost no more! The steel-slide feature is widely recognized as superior design.



SIMPLEX UTILITY VISE

MACHINISTS' SWIVEL BASE VISE

MACHINISTS' STATIONARY BASE VISE

PRICES

Vise No.	Width of Jaw	Jaws Open	Weight, Pounds	List Price
MACHINISTS' STATIONARY BASE				
31 P	3¼"	4½	21	$10.00
33 P	3¾"	5	30	11.25
41 P	4¼"	6	42	12.75
43 P	4¾"	7	60	15.50
51 P	5¼"	8	83	20.00
61 P	6¼"	10	122	39.00
71 P	7¼"	12	175	55.00
81 P	8¼"	13	231	75.00
MACHINISTS' SWIVEL BASE				
31 S	3¼"	4½	25	$13.00
33 S	3¾"	5	36	15.00
41 S	4¼"	6	50	17.00
43 S	4¾"	7	72	20.00
51 S	6¼"	8	100	30.00
61 S	6¼"	10	146	52.00
71 S	7¼"	12	210	70.00

COMBINATION PIPE VISE

No.	Jaw	Weight Lbs.	Holds Pipe	Price	Without Pipe Jaws
CP 33	3¾	46	⅛ to 2½	$16.00	$13.60
CP 43	4¾	80	⅛ to 4	22.00	18.60

SIMPLEX UTILITY

*30	3"	3¼"	11	$2.20
100	3"	3¼"	12	3.00
350	3½"	4½"	19	4.50
400	4"	5"	25	7.50
500	5"	5"	29	8.50

(*No. 30 does not have swivel base)

DESMOND-STEPHAN MANUFACTURING CO.
URBANA, OHIO

PARKER "FILERS" VISES

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
44	44	4	3	$16.50
‡278	52	4	5½	24.00
STATIONARY BASE				
42	35	4	3	$13.50

‡ No. 278 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

Vises—Drill Press, Miller, Planer and Shaper

(Continued from page 298)

Athol Machine & Foundry Co., Athol, Mass.
Brown Engineering Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Illinois Tool Works, Chicago, Ill.
Kearney & Trecker Corp., Milwaukee, Wis.
Knight, W. B., Machinery Co., St. Louis.
Modern Machine Tool Co., Jackson, Mich.
Mohn Machine Co., Reading, Pa.
Morgan Vise Co., Chicago, Ill.
National Machine Tool Co., Racine, Wis.
North Bros. Mfg. Co., Philadelphia, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Oesterlein Machine Co., The, Cincinnati, O.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Yost Manufacturing Co., Meadville, Pa.

Vises, Filers'

American Chain Co., Inc., Bridgeport, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Disston, Henry, & Sons, Inc., Philadelphia.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.

Vises, Hand and Pin

American Chain Co., Inc., Bridgeport, Conn.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven.
Lowell Wrench Co., Worcester, Mass.
Millers Falls Co., Greenfield, Mass.

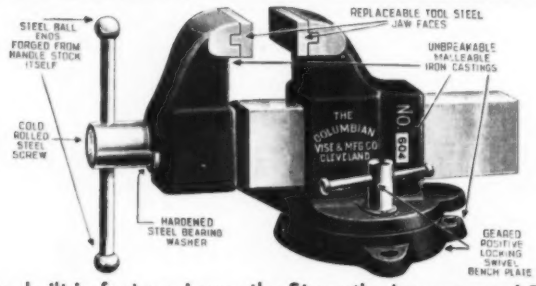
Vises, Machinists'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.

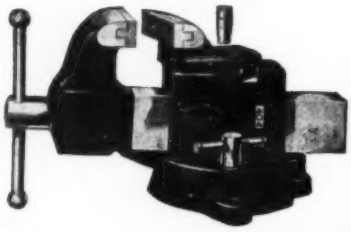
(Continued on page 302)

COLUMBIAN Machinists' VISES

are Unbreakable — made of Malleable Iron



Exclusive built-in features insure the Strength, Accuracy and Durability required in good vises.



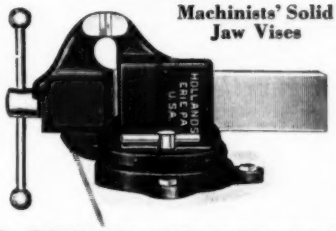
The COLUMBIAN VISE & MFG. CO. **Cleveland, Ohio**

YOST Machinists' VISES

MODELS
STATIONARY BASE
SWIVEL BASE
TOP SWIVEL JAW
DOUBLE SWIVEL
UTILITY

YOST MFG. CO.
Meadville, Pa., U. S. A.

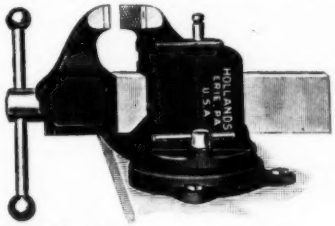
HOLLANDS VISES



Machinists' Solid Jaw Vises

The Hollands design provides maximum strength, rigidity and durability. Jaws are steel faced and machine corrugated. The swivel base is positive and locks at any point.

Swivel Base No.	Wt. Lbs.	List Price Each	Width Jaw Inches	Jaw Open Inches	Stationary Base No.	Wt. Lbs.	List Price Each
22½	20	$12.00	2½	3½	12½	15	$ 9.00
23	30	13.00	3	4½	13	22	10.00
23½	37	15.00	3½	5	13½	30	11.25
24	54	17.00	4	6	14	44	12.75
24½	75	20.00	4½	7	14½	60	15.50
25	90	30.00	5	8	15	75	20.00
25½	120	38.00	5½	9	15½	105	30.00
26	170	52.00	6	10½	16	144	39.00
27	215	70.00	7	12	17	190	55.00
28	290	98.00	8	12½	18	255	75.00
29	340	115.00	9	13	19	260	90.00

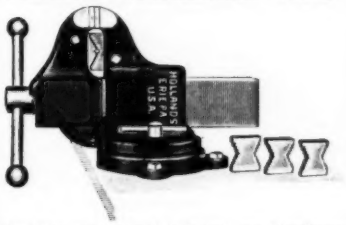


Machinists' Swivel Jaw Vises

Swivel Base

No.	Width Jaw Inches	Jaw Open Inches	Wt. Lbs.	Price Each
42½	2½	3½	20	$16.00
43	3	3¾	36	17.50
43½	3½	5	46	20.00
44	4	5¾	62	24.00
44½	4½	7¼	76	28.00
45	5	7¾	95	35.00
45½	5½	8¼	126	44.00
46	6	11¼	170	60.00
47	7	12½	220	75.00
48	8	13	300	105.00

Hollands Combination Vises



Pipe Jaws are tempered tool steel, are interchangeable and reversible.

Vise No.	Width Jaw, In.	Holds Pipe, In.	Weight Pounds	List Price Each
52	3½	¼ to 2½	55	$16.00
53	4¼	⅛ to 3½	82	22.00
54	5	⅛ to 4½	120	32.00
56	6	⅛ to 6	186	45.00

SEND FOR CATALOG NO. 36

HOLLANDS MFG. COMPANY

ERIE, PA. - U. S. A.

PARKER VISES

1832 1936

SEVEN REASONS WHY

1. Renewable Tool Steel Jaws.
2. A Swivel with the strength of a solid back Jaw.
3. Solid Steel Bar Slide Strengthener.
4. Improved Saddle and solid underportion.
5. Handle that stays put.
6. Castings of Parkco Metal.
7. Extra strong nut and screw.

QUALITY PROVEN—104 YEARS OF SERVICE

"SUPERIOR" MACHINISTS STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
29X	33	3¼	4	$11.50
39X	52	3¾	6	13.00
49X	72	4¼	7	17.00
59X	90	4¾	8	22.00
69X	129	5½	9	33.00
79X	159	6¼	9½	45.00
79½X	194	7	10½	55.00
60X	297	8	13¾	95.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
229X	39	3¼	4	$15.00
239X	61	3¾	6	17.00
249X	85	4¼	7	21.00
259X	103	4¾	8	27.50
269X	151	5½	9	42.00
279X	187	6¼	9½	60.00
279½X	228	7	10½	70.00
260X	351	8	13¾	105.00

"TOP SWIVEL JAW" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
270	33	3	3½	$17.50
271	51	3½	5	20.00
271½	52	4	5	24.00
272	71	4½	6	28.00
273	85	5	7	35.00
274	123	5½	9	44.00
275	174	6	9½	60.00
240	220	7	11	75.00

"DOUBLE SWIVEL" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
429	53	3½	3½	$27.00
439	67	4	6	32.00
449	87	4½	7½	39.00

"ECLIPSE" MACHINISTS

No.	Weight Lbs.	Jaw In.	Vise Opens	List
101	15	2½	3½	$ 9.00
102	23	3	4½	10.00
103	35	3½	5½	11.25
104	46	4	6½	12.75
105	63	4½	7	15.50
106	85	5	8	20.00
106½	110	5½	9	30.00
107	132	6	10½	39.00
108	245	8	13¾	75.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
201	17	2½	3½	$12.00
202	26	3	4½	13.00
203	42	3½	5½	15.00
204	59	4	6½	17.00
205	76	4½	7	20.00
206	104	5	8	30.00
206½	130	5½	9	38.00
207	157	6	10½	52.00
208	298	8	13¾	98.00

HEAVY DUTY AND SERVICE STATION

Have extra weight and heavy anvil attached.

STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
134	76	4	5½	$17.50
135	102	5	6	24.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
234	89	4	5½	$21.50
235	112	5	6	32.00

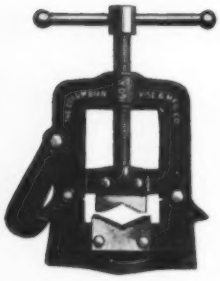
THE CHARLES PARKER COMPANY **MERIDEN, CONNECTICUT**

THEY GRIP LIKE A GRIZZLY

UMI

COLUMBIAN

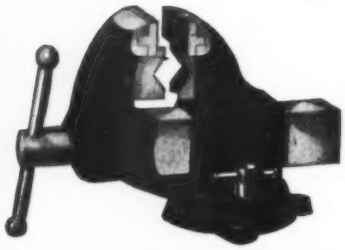
Hinged and Combination **PIPE VISES**



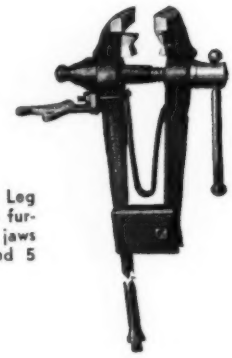
Part of the COMPLETE COLUMBIAN LINE

Columbian Pipe Vises are made of malleable iron and designed for greatest strength.

The tool steel pipe jaws of the combination vises are interchangeable and reversible.



Forged Steel Leg Vises can also be furnished with pipe jaws in the 4, 4½ and 5 inch sizes.



The COLUMBIAN VISE & MFG. CO. **Cleveland, Ohio**

HOLLANDS

HINGED PIPE VISES

No.	Pipe Capacity Inches	Weight Pounds	List Price Each
398	⅛ to 1¼	4	$2.50
399	⅛ to 1½	5	3.60
401	⅛ to 2	9	4.25
402	⅛ to 2½	12	5.00
403	⅛ to 3½	18	7.50
404	⅛ to 4½	30	11.00
406	⅛ to 6	55	23.50
408	1 to 8	80	47.50
412	1½ to 12	160	70.00

Hollands Clamp Vises

Same construction as Hollands Malleable hinged pipe vises shown above except that base is equipped with a clamp, for clamping vise to bench or post.

Vise No.	Pipe Capacity Inches	Weight Pounds	List Price Each
398-C	⅛ to 1¼	5	$3.50
399-C	⅛ to 1½	8	4.50
400-C	⅛ to 2	11	5.00
402-C	⅛ to 2½	15	6.50

SEND FOR CATALOG NO. 36

HOLLANDS MFG. COMPANY

ERIE, PA. **U. S. A.**

Erie Pipe Vises

Made in heavy and medium weights. Also clamp base and chain type.

All Erie pipe vises, like other Erie tools, are absolutely guaranteed. Every one is carefully designed, and built to the most exacting standards. Here is a complete line, fitting perfectly into the distributor's set up. Send for our catalog and prices. You will be interested.

THE ERIE TOOL WORKS - ERIE, PA.

YOST

PIPE VISES

MODELS

COMBINATION

HINGE

HINGE—HEAVY DUTY

HINGE—CLAMP KIT

CHAIN

YOST MFG. CO.

Meadville, Pa., U. S. A.

Vises, Machinists'

(Continued from page 300)

Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
North Bros Mfg. Co., Philadelphia, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Patternmakers'

(See "Vises, Woodworkers'")

Vises, Pipe

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Grinnell Co., Inc., Providence, R. I.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, Chain

American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, Combination

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Erie Tool Works, The, Erie, Pa.
Hennebohle, Frank, Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Morgan Vise Co., Chicago, Ill.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Wright Mfg. Div. of American Chain Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, for Nickel and Brass Pipe

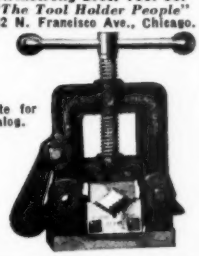
Armstrong Mfg. Co., Bridgeport, Conn.
Nye Tool & Machine Works, The, Chicago.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

ARMSTRONG BROS.

PIPE VISES

Chain Vises (patented) have 1-piece drop forged jaws and 5 other improvements. Hinged Vises with drop forged steel hooks, and jaws of tool steel milled, hardened and tempered.

Armstrong Bros. Tool Co.
"The Tool Holder People"
332 N. Francisco Ave., Chicago.



Write for Catalog.

Heavy Duty Vises
Open Side Vises
Pipe Vise Saddle that attaches anywhere.

PIPE VISES

—by "TOLEDO" hold all pipe perfectly. Hinge type up to 4½". Open Side type up to 4½". No latch to lift. Malleable frames. Heat treated hardened steel jaws. Good for years of service.

Catalog on request.

THE TOLEDO PIPE THREADING MACHINE CO. TOLEDO, O.

New York Office & Display: 72 Lafayette Street

GENUINE "VULCAN" CHAIN PIPE VISE

Drop-Forged Base, Handle and Jaws. Saw tempered teeth for file sharpening. Light, compact, unbreakable. 4 sizes for ⅛" to 8" pipe.

J. H. Williams & Co.
"The Wrench People"
75 Spring St. New York

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

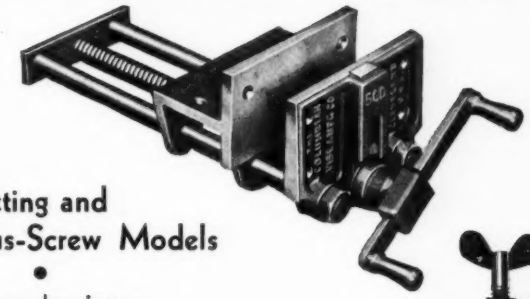
PARKER
"Combination Pipe" VISES

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	Holds Pipe Up to	List
87	47	3½	3	2	$17.50
88	74	4½	5	3	24.00
288½	116	5	6	4	35.00
289½	185	6	9½	6	49.00

THE CHARLES PARKER CO.
Meriden, Conn.

COLUMBIAN
Woodworkers' VISES



Rapid-Acting and Continuous-Screw Models

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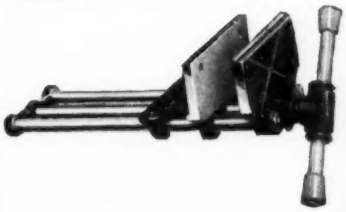
Made in all popular sizes—
Plain jaws or with a dog in the front jaw.



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Also
Drop Forged Steel "C" Clamps for woodworking shops and Light Service work.

The COLUMBIAN VISE & MFG. CO. **Cleveland, Ohio**

Vises, Pipe, Tool Kit and Post

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., Bridgeport, Conn.
Erie Tool Works, The, Erie, Pa.
Hollands Mfg. Co., Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pneumatic

Hannifin Mfg. Co., Chicago, Ill.

Vises, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Beaver Pipe Tools, Inc., Warren, Ohio.
Cincinati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Imperial Brass Mfg. Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent & Co., New Haven, Conn.
Trimont Mfg. Co., Boston, Mass.

Vises, Solid Box

American Chain Co., Inc., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland.

Vises, Swivel

(See "Vises, Bench" or "Vises, Machinists' ")

Vises, Toolmakers'

(See "Vises, Machinists' ")

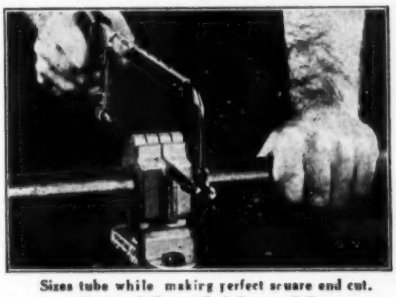
Vises, Welders'

International Nutyp Tool Corp., Oswego, N. Y.

Vises, Woodworkers'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Greenlee Bros. & Co., Rockford, Ill.
Hollands Mfg. Co., Erie, Pa.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rock Island Mfg. Co., Rock Island, Ill.

Trimo Saw Vise Set
FOR THIN WALL TUBING



Sizes tube while making perfect square end cut.
Takes ⅜" to 2" O.D. or I.D.

Trimont Manufacturing Company
Boston, Mass.

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PARKER "WOODWORKERS" VISES

No.	Weight Lbs.	Jaw Vise Opens In.	Depth Face In.	List
SWIVEL BASE				
246	77	4½	7	2¼ $22.50
‡276	53	4	7	2¼ 25.00
STATIONARY BASE				
146	64	4½	7	2¼ $17.50

‡ No. 276 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

Stanley Rule & Level Plant, New Britain, Conn.
Toles, W. C., Co., Woodstock, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Yost Manufacturing Co., Meadville, Pa.

Voltmeters

Bristol Co., The, Waterbury, Conn.
General Electric Co., Schenectady, N. Y.

Vulcanizers

Heintz, James C., & Co., Cleveland, Ohio.

Vulcanizers, Portable, for Rubber Belts

Goodrich, B. F., Co., The, Akron, Ohio.
Heintz, James C., & Co., Cleveland, Ohio.

Washers—Aluminum, Brass, Copper, Lead, Tin and Zinc

Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Atlas Tack Corp., Fairhaven, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Chase Brass & Copper Co., Waterbury, Conn.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Consolidated Metals Corp., Detroit, Mich.
Economy Manufacturing Co., Philadelphia.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn. (Aluminum, brass, copper and tin)
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
National Motor Bearing Co., Inc., Oakland, Calif. (Brass)
Pawtucket Manufacturing Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.

YOST

PATTERN MAKERS
WOOD WORKERS
VISES

MODELS
COACH MAKERS
QUICK ACTION
MANUAL TRAINING
UNIVERSAL

YOST MFG. CO.
Meadville, Pa., U. S. A.

Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Toledo Washer & Stamping Co., Toledo, O.
United Screw & Bolt Corp., Cleveland, Ohio.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Asbestos

Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Carey, Philip, Co., The, Lockland, Ohio.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodrich, B. F., Co., The, Akron, Ohio.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Automobile and Vehicle

Armstrong Cork Products Co., Lancaster, Pa.
Asch & Co., Inc., New York, N. Y.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Deming Co., The, Salem, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hobbs Manufacturing Co., Worcester, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.
Master Products Co., The, Cleveland, Ohio
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Walworth Co., New York, N. Y.
Western Packing & Supply Co., Chicago.
Worthington Pump and Machinery Corp. Harrison, N. J.
Wrought Washer Mfg. Co., Milwaukee Wis.

Washers, Bibb

Auburn Manufacturing Co., Hartford Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Cook, H. N., Belting Co., San Francisco.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Holland Rubber Co., New York, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
New England Screw Co., Boston, Mass.
Page Belting Co., Concord, N. H.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Spaulding Fibre Co., Inc., Tonawanda N. Y.

Washers, Cast Iron

American Car and Foundry Co., New York N. Y.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Johnston & Jennings Co., The, Cleveland.
Nute, McGehee, Geary Co., Inc., The Chambersburg, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wrought Washer Mfg. Co., Milwaukee.

Washers—Cork, Paper and Pasteboard

Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork Products Co., Lancaster, Pa.
Auburn Manufacturing Co., Hartford Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Davis, John C., Rochester, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Holland Rubber Co., New York, N. Y.
Humphrey, H. W., Unionville, Conn.
Lunkenheimer Co., The, Cincinnati, Ohio.

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IN ANY METAL or SHEET MATERIAL
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U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Felt and Fabric

Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
MacWatty Belting Co., Providence, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Fibre

Akron Metallic Gasket Co., Akron, Ohio.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Auburn Manufacturing Co., Hartford, Conn.
Bastian-Blessing Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Humphrey, H. W., Unionville, Conn.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Massachusetts Machine Shop, Inc., Boston.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Galvanized

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn.
Littleford Bros., Cincinnati, Ohio.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Scott Valve Manufacturing Co., Detroit.
Sheffield Steel Corp., Kansas City, Mo.
Toledo Washer & Stamping Co., Toledo, O.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers and Gaskets, Gauge Glass

Bache, Semon, & Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Lubricator Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Durabla Manufacturing Co., New York.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Rubber Works, Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Klingerit, Inc., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Sargent Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wright-Austin Co., Detroit, Mich.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Hose

Auburn Manufacturing Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Leather and Rawhide

Auburn Manufacturing Co., Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
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Garlock Packing Co., The, Palmyra, N. Y.
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Lunkenheimer Co., The, Cincinnati, Ohio.
Mabbs Hydraulic Packing Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
Mark, Clayton, & Co., Chicago, Ill.
Marsh, Chas. W., Co., Muskegon, Mich.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens-Walden, Inc., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Lock

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Beall Tool Co., East Alton, Ill.
Butcher & Hart Mfg. Co., Toledo, Ohio.
Eaton Manufacturing Co., Reliance Spring Washer Division, Massillon, Ohio.
Harper, H. M., Co., Chicago, Ill.
Hobbs Manufacturing Co., Worcester, Mass.
National Lock Washer Co., Newark, N. J.
Philadelphia Steel & Wire Corp., Philadelphia, Pa.
Positive Lock Washer Co., The, Newark, N. J.
Rockford Screw Products Co., Rockford, Ill.
United Screw & Bolt Corp., Cleveland, O.
Washburn Co., The, Worcester, Mass.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Malleable Iron

Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Maris Brothers, Inc., Philadelphia, Pa.
Master Products Co., The, Cleveland.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Mine Car Axle

American Car and Foundry Co., New York.
American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Hobbs Manufacturing Co., Worcester, Mass.
Master Products Co., The, Cleveland, Ohio.
United Screw & Bolt Corp., Cleveland, O.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Nail Head

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.

UMI

Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Oil Cup

Akron Metallic Gasket Co., Akron, Ohio.
Chicago Rawhide Mfg. Co., The, Chicago.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W. Co., Muskegon, Mich.
Schieren, Chas. A., Co., New York.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee, Wis.

Washers, Paper and Pasteboard

(See "Washers—Cork, Paper and Pasteboard")

Washers, Pump

Auburn Manufacturing Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Davis, John C., Rochester, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Home Rubber Co., Trenton, N. J.
Michigan Leather Packing Co., Detroit.
Myers, F. E., & Bro. Co., The, Ashland, O.
Page Belting Co., Concord, N. H.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens, Walden, Inc., Worcester, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams, I. B., & Sons, Dover, N. H.

Washers, Roofing

(See "Washers—Aluminum, Brass, Copper, Lead, Tin and Zinc")

Washers, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., The, Akron, Ohio.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hoffeld, R., & Co., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Washers, Steel, Flat

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Bay State Stamping Co., Worcester, Mass.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Columbus Bolt Works Co., The, Columbus, Ohio.
Detroit Stamping Co., Detroit, Mich.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Hitner's, Henry A., Sons Co., Philadelphia.
Hobbs Manufacturing Co., Worcester, Mass.
Humphrey, H. W., Unionville, Conn.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Pawtucket Manufacturing Co., Pawtucket, R. I.
Quadriga Mfg. Co., The, Chicago, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Standard Shop Equipment Co., Philadelphia, Pa.
Stanley Works, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
United Screw & Bolt Corp., Cleveland, O.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Spring

American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Beall Tool Co., East Alton, Ill.
Butcher & Hart Mfg. Co., Toledo, Ohio.
Eaton Manufacturing Co. (Reliance Spring Washer Division) Massillon, Ohio.
Hobbs Manufacturing Co., Worcester, Mass.
National Lock Washer Co., The, Newark, N. J.
Philadelphia Steel & Wire Co., Germantown, Philadelphia, Pa.
Positive Lock Washer Co., The, Newark, N. J.
Washburn Co., The, Worcester, Mass.

Washers, Street

Field, R. B., & Co., Worcester, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.

Washers, Valve, Hydrant

Auburn Manufacturing Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Kupferle, John C., Foundry Co., St. Louis.
Manhattan Rubber Mfg. Co. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Page Belting Co., Concord, N. H.
Schieren, Chas. A., Co., New York, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Washers, Wrought Iron

American Nut and Bolt Fastener Co., Pittsburgh, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hobbs Manufacturing Co., Worcester, Mass.
Maryland Bolt & Nut Co., The, Baltimore, Md.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
Republic Steel Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
United Screw & Bolt Corp., Cleveland, Ohio.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Waste, Cotton and Wool

American Sanitary Rag Co., Chicago, Ill.
Buffalo Batt & Felt Corp., Depew, N. Y.
Colorado Sanitary Wiping Cloth Co., Denver, Colo.
Cook & Riley, Inc., Chicago, Ill.
Corr, Patrick, & Sons, Inc., Philadelphia.
General Fibre Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Lillie, Dexter P., Co., New Bedford, Mass.
Massasoit Mfg. Co., Fall River, Mass.
Mont, A. W., & Co., Inc., Plainville, Conn.
Rauschenberger, John, Co., Milwaukee, Wis.
Riverside Mills, Inc., Augusta, Ga.
Robinson, D., & Sons, Detroit, Mich.
Springfield Waste Co., Springfield, Mass.
Star Sanitary Rag Co., Chicago, Ill.
Sweetland Waste Co., Inc., Canton, Mass. (Cotton)
Wiping Materials, Inc., St. Louis, Mo.
Wisconsin Waste & Wiper Co., Milwaukee.

Water Columns

(See "Columns, Water")

Water Gun, Lawn Sprinkling

Penberthy Injector Co., Detroit, Mich.

Water Lifts

(See "Pumps")

Water Supply Systems

(See "Systems, Water Supply")

Water Treatment for Boilers

(See "Treatment, Water, for Boilers")

Wattmeters, Recording

Bristol Co., The, Waterbury, Conn.
General Electric Co., Schenectady, N. Y.

Wax, Belt

Atkins, E. C., and Co., Indianapolis, Ind.
Burrell Belting Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Himmelein & Bailey, Inc., Camden, N. J.
Philadelphia Belting Co., Philadelphia, Pa.

Ways, Balancing

(See "Machines or Ways, Balancing")

Webbing, Cotton

Burrell Belting Co., Chicago, Ill.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
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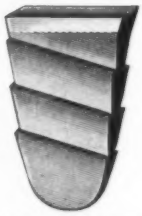

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Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.

Wedges, Foundry

Sterling Wheelbarrow Co., Milwaukee, Wis.

Wedges, Frost

Klein-Logan Co., The, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

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Klein-Logan Co., The, Pittsburgh, Pa.
Market Forge Co., Everett, Mass.
Maryland Bolt & Nut Co., The, Baltimore, Md.
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Stanley Rule & Level Plant, The, New Britain, Conn.

Wedges, Tool Post

(See "Rings and Wedges, Tool Post")

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Rowe, Henry, Mfg. Co., Newago, Mich.

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Pittsburgh Thermoline Co., Pittsburgh, Pa.
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Linde Air Products, Inc., The, New York.
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Modern Engineering Co., St. Louis, Mo.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Pittsburgh Thermoline Co, Pittsburgh, Pa.
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Sight Feed Generator Co., Richmond, Ind.
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Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

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(See "Barrows")

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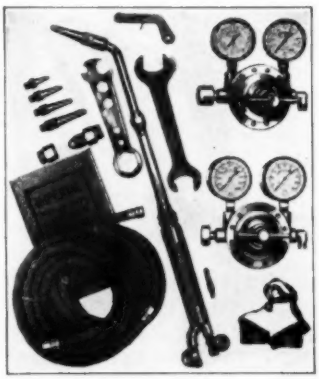
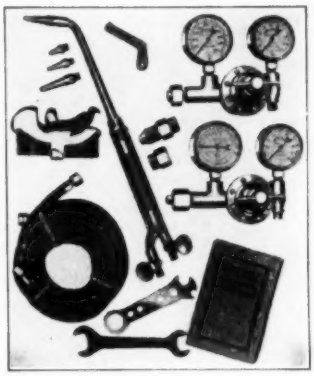
IMPERIAL Equipment has won a high place in modern industry because of its efficiency, durability, safety and economy. "Imperial" superiority is due to continual improvements in design and workmanship, such as a new principle of mixing that insures a uniform mixture of the two gases, and accurate regulation of both volume and velocity of the two gases.

Below are shown two all-purpose Imperial welding outfits that are specially recommended to industrial distributors and their customers:



No. 111 Outfit, designed for continuous service and all types of welding. Outfit consists of torch, 5 welding tips and 2 mixers, oxygen regulator with gauges, acetylene regulator with gauges, cylinder or tank union, hose connections, oxygen hose, acetylene hose, goggles, lighter, wrenches and welding hand book. Price, $69.50. Carrying case, $6.00 extra.



No. 117 Outfit, a necessity in every shop and garage that offers complete welding service. Each regulator has two gauges, which enable the operator to know both cylinder and working pressure of the gases. Outfit consists of torch, regulators, tank or cylinder adapters, oxygen hose, acetylene hose, wrenches, goggles and welding hand book. Price, $54.50. Carrying case, $4.50 extra.

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Cook, H. N., Belting Co., San Francisco.
Dallett Co., The, Philadelphia, Pa.
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Excelsior Tool and Machine Co., East St. Louis, Ill.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.
Hunt, C. B., & Son, Salem, Ohio.
Independent Pneumatic Tool Co., Chicago,
Lane Mfg. Co., Montpelier, Vt. (Stone buffing wheels)
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Ohio Buff & Mfg. Co., The, Cincinnati, Ohio.
Osborn Manufacturing Co., Cleveland, O.
Page Belting Co., Concord, N. H.
Robinson, D., & Sons, Detroit, Mich.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A. Co., New York, N. Y.
Stanley Electric Tool Division, New Britain, Conn.
Wappat, Inc., Pittsburgh, Pa.

Wheels, Bull

Empire Manufacturing Co., Quincy, Ill.
Lane Mfg. Co., Montpelier, Vt.
Memphis Machine Works, Memphis, Tenn.
Pyott Foundry & Machine Co., Chicago, Ill.

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Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Electric Wheel Co., Quincy, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Diamond Iron Works, Inc., Minneapolis.
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Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
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Lonergan J. E., Co., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.

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Bay State Emery Wheel Co., Not Inc., Worcester, Mass.
Carborundum Co., The, Niagara Falls, N. Y.
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Cleveland Container Co., The, Cleveland.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Dumore Co., The, Racine, Wis.
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Luther Grinder & Tool Co., Milwaukee.
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Norton Co., Worcester, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Peninsular Grinding Wheel Co., Detroit.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Safety Grinding Wheel & Machine Co., The Springfield, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Electric Tool Division, New Britain, Conn.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
Vitrified Wheel Co., Westfield, N. J.
Waltham Grinding Wheel Co., Waltham, Mass.
Wappat, Inc., Pittsburgh, Pa.
Whitney Mfg. Co., The, Hartford, Conn.

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Chicago Wheel & Mfg. Co., Chicago, Ill.
Dumore Co., The, Racine, Wis.
Norton Co., Worcester, Mass.

Wheels, Paper

(See "Pulleys and Wheels, Paper")

Wheels, Pipe Cutter

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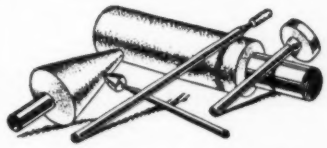
Greenfield Tap & Die Corp., Greenfield, Mass.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Wheels, Polishing

(See "Wheels, Buffing and Polishing")

Wheels, Rope

(See "Sheaves, Rope, Power Transmission")



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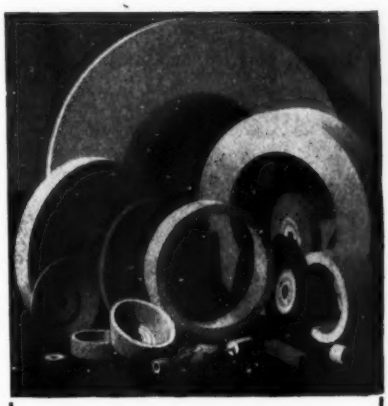

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Filer & Stowell Co., The, Milwaukee, Wis.
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Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
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Smith, Winfield H., Inc., Springfield, N. Y.
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Weller Mfg. Co., Chicago, Ill.

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Atlas Brass Foundry Co., The, Columbus, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Conco Engineering Works, Mendota, Ill.
Harrington Co., The, Philadelphia, Pa.
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Filer & Stowell Co., The, Milwaukee, Wis.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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Foote Gear Works, Inc., Chicago, Ill.
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Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

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Streich, A., & Bro. Co., Oshkosh, Wis.

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Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Williams, D. T., Valve Co., The, Cincinnati.

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Fitz Water Wheel Co., Hanover, Pa.
Hoppes Water Wheel Co., The, Springfield, Ohio.

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Powell, Wm., Co., The, Cincinnati, Ohio.

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(See "Machines and Equipment, Painting and Whitewashing")

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(See "Tape and Wicking, Asbestos" and "Packing, Asbestos, Wick")

Wicking, Cotton

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Buffalo Batt & Belt Corp., Depew, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Massasoit Mfg. Co., Fall River, Mass.
Standard Oil Co. of New York, The, New York, N. Y.
Toledo Pressed Steel Co., The, Toledo, O.
Walters Manufacturing Co., Oakmont, Pa.
Western Packing & Supply Co., Chicago.

Wicking, Felt

Advance Packing & Supply Co., Chicago.
Booth Felt Co., Inc., Brooklyn, N. Y.

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Columbus-McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist & Machinery Co., Mountville, Pa.
Harrington Co., The, Philadelphia, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Klemm Manufacturing Corp., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Round, David, and Son, Cleveland, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Shepard Miles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N.Y.
United Machinery Co., Portland, Ore.

Winders, Spring

Porter Manufacturing Co. (Division of Monarch Metal Co.), Chicago, Ill.

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(See "Cloths, Wiping, Machine")

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American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Cleveland, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Barbed

American Chain Co., Inc., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Keystone Steel & Wire Co., Peoria, Ill.
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Blasting, Connecting and Leading

American Steel & Wire Co., Chicago, Ill.

Wire—Brass, Copper, Nickel, Phosphor Bronze and Silver

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buffalo Wire Works Co., Inc., Buffalo.
Chase Brass & Copper Co., Waterbury, Conn.
Michigan Wire Cloth Co., Detroit, Mich.
Phosphor-Bronze Smelting Co., The, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.
Scovill Mfg. Co., Waterbury, Conn.
Weldit Acetylene Co., Detroit, Mich.

Wire, Broom, Tinned

American Steel & Wire Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland.
Rinn, Albert E., Co., Allentown, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

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(See "Cloth, Wire")

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Compact and very powerful. Worm gear drive enables one man to lift heavy loads with safety. Self-locking, will hold load in any position.
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Write for dimensions and prices

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American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Smooth only)
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.

Wire, Fuse

American Steel & Wire Co., Chicago, Ill.
Bussmann Mfg. Co., St. Louis, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.

Wire, Insulated

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Euclid Rubber Co., Cleveland, Ohio.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Royal Electric Co., Inc., Avon, Mass.
Simplex Wire & Cable Co., Boston, Mass.

Wire, Lead

American Steel & Wire Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bussmann Mfg. Co., St. Louis Mo.
Consolidated Metals Corp., Detroit, Mich.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hercules Powder Co., Inc., Wilmington, Del.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.
Simplex Wire & Cable Co., Boston, Mass.

Wire, Music

American Steel & Wire Co., Chicago, Ill.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Frasse, Peter A., & Co., Inc., New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Spencer Steel Co., New York.

Wire Rope

(See "Rope, Wire")

Wire, Solder

Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Chase Brass & Copper Co., Waterbury, Conn.
Consolidated Metals Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Great Lakes Chemical Works, Detroit, Mich.
Hewitt Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Rochester Lead Works, Rochester, N. Y.

Wire, Spooled and Coiled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Chain Co., Inc., Bridgeport, Conn.
Anaconda Wire & Cable Co., New York.
Chase Brass & Copper Co., Waterbury, Conn.
Crucible Steel Co. of America, New York, N. Y.
General Electric Co., Schenectady, N. Y.
National Lead Co., New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Spencer Steel Co., New York.

Wire, Straightened and Cut

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Bliss & Laughlin, Inc., Harvey, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Crucible Steel Co. of America, New York, N. Y.
Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, Ohio.
Kansas City Smelting Co., Kansas City, Mo.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Sight Feed Generator Co., Richmond, Ind.
Wickwire Bros., Cortland, N. Y.
Wickwire Spencer Steel Corp., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Threaded

American Steel & Wire Co., Chicago, Ill.
Pheoll Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
United Screw & Bolt Corp., Cleveland, O.
Washburn Co., The, Worcester, Mass.

Wire and Rods, Welding

Air Reduction Sales Co., New York, N. Y.
American Chain Co., Inc., Bridgeport, Conn.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Foundry Co., Irvington, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bristol Brass Corp., The, Bristol, Conn.
Central Steel & Wire Co., Chicago, Ill.
Chase Brass & Copper Co., Waterbury, Conn.
Colmonoy, Inc., Los Nietos, Calif.
Consolidated Metals Corp., Detroit, Mich.
Crucible Steel Co. of America, New York, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Frasse, Peter A., & Co., Inc., New York.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn
Imperial Brass Mfg. Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln Electric Co., The, Cleveland, O.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Simplex Wire & Cable Co., Boston, Mass.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Union Drawn Steel Co., (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Woodworkers, Universal

Boice, W. B. & J. E., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Leach Co., Oshkosh, Wis.
Master Woodworker Mfg. Co., Detroit.
Northfield Foundry & Machine Co., Northfield, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Woodworking Machinery

(See "Machines, Woodworking," and Specific Items)

Wool, Lead

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Federated Metals Corp., New York, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rinn, Albert E., Co., Allentown, Pa.
Rochester Lead Works, Rochester, N. Y.

Wool, Mineral

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn. (Also rock wool)
U. S. Mineral Wool Co., New York, N. Y.

Wool, Steel

American Steel Wool Mfg. Co., Inc., New York, N. Y.
Rinn, Albert E., Co., Allentown, Pa.

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ADJUSTABLE WRENCHES
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SIZES: 4, 6, 8, 10, 12"

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ADJUSTABLE WRENCHES

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Wallace, J. D., & Co., Chicago, Ill.

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Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Heller Brothers Co., Newark, N. J.
International Nutyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Oliver-Barth Jack Co., Milwaukee, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Scholler Mfg. Co., Inc., Buffalo, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vichek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Adjustable "S"

Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Erie Tool Works, The, Erie, Pa.
International Nutyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Wrenches, Alligator Type

Armstrong Bros. Tool Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.

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THE PERFECT HANDLE MONKEY WRENCH

TRIMO
Drop forged bar and jaw for extra strength and service — a finely made steel monkey wrench of proved design now made by the makers of famous Trimo Tools.
"Perfect Handle" wrenches in sizes 6"-21" with all metal or knife handle.
Product of
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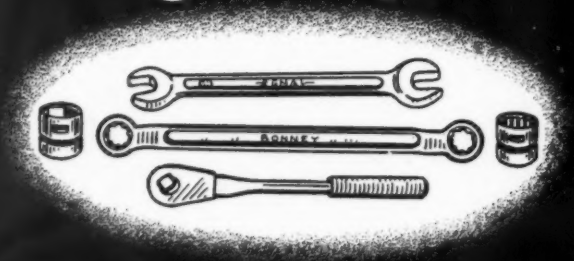

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Williams, J. H., & Co., New York, N. Y.

Wrenches, Automobile

Armstrong Bros. Tool Co., Chicago, Ill.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ruleta Co., Inc., The, New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Bicycle

Barcalo Mfg. Co., Buffalo, N .Y.
Billings & Spencer Co., The, Hartford, Conn.
Crescent Tool Co., Jamestown, N. Y.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Bros. Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Box

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Hinsdale Mfg. Co., Chicago, Ill.
International Chain & Mfg. Co., York, Pa.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Brace

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cap Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Kilborn and Bishop Co., The, New Haven, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car

Advance Car Mover Co., Inc., Appleton, Wis.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Loane Engineering Co., Baltimore, Md.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car Dumping

Advance Car Mover Co., Inc., Appleton, Wis.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
Rowell Mfg. Co., Appleton, Wis. (Combination car and paper wrenches)
Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Chuck

Billings & Spencer Co., The, Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cock—Steam and Gas

Detroit Brass & Malleable Works, Detroit, Mich.
Stevens, Walden, Inc., Worcester, Mass.
Walworth Co., New York, N. Y.

Wrenches, Combination Pipe and Nut

Bemis & Call Co., Springfield, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Erie Tool Works, The, Erie, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Flange

Heller Brothers Co., Newark, N. J.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Hydrant

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Drew, C., & Co. Kingston Mass.
Heller Bros. Co., Newark, N. J.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.

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Safety
Hopper CAR Wrench

LIST PRICE
$20.00

The SWACO Hopper Car Wrench assures safety and speed in opening drop bottom cars. The two-way pawl mechanism and the ball bearing reversible ratchet head (exclusive SWACO features) give positive action under all working conditions. All parts are of steel testing 70,000 to 80,000 lbs. tensile strength.

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Also see our Car Mover advertisement near "Car Mover" listings.

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Kilborn and Bishop Co., The, New Haven, Conn.
Klein, M., & Sons, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Lathe Dog

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Linemen's

Billings & Spencer Co., The, Hartford, Conn.
Crescent Tool Co., Jamestown, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Monkey

(See "Wrenches, Adjustable")

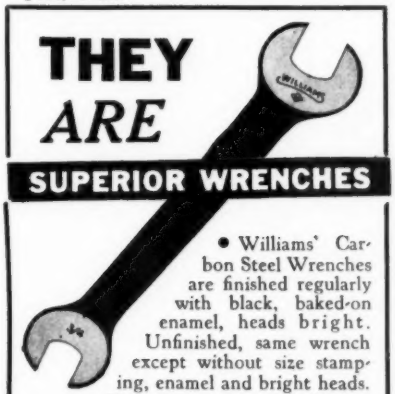
Wrenches, Oil Well

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y

Wrenches, Open End

Armstrong Bros Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.

THEY ARE SUPERIOR WRENCHES



• Williams' Carbon Steel Wrenches are finished regularly with black, baked-on enamel, heads bright. Unfinished, same wrench except without size stamping, enamel and bright heads. 50 patterns—over 1,000 sizes.

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J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring St., New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
WRENCHES
MOST COMPLETE LINE IN U. S. A.

ARMSTRONG

Drop Forged WRENCHES

Highest quality. Wrenches to meet every need. All standard millings. Special carbon steel, or, longer, lighter, thinner, stronger Chrome-Vanadium Steel. Singly, on boards or in sets. See Wrenches: Socket.

50 Types
All Sizes
1 Quality

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
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New York Office: 199 Lafayette St.
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Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., New Haven, Conn.
Klein, M., & Son, Chicago, Ill.
Kraeuter & Co., Inc., Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vichek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe

Armstrong Bros. Tool Co., Chicago, Ill.
Belden Machine Co., New Haven, Conn.
Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Crescent Tool Co., Jamestown, N. Y.
Erie Tool Works, The, Erie, Pa.
Greene, Tweed & Co., New York, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Henry & Allen, Inc., Auburn, N. Y.
International Nutyp Tool Corp., Oswego, N. Y.
Maydole, David, Tool Corporation, Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

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Stronger, handier—patented design. No cast frame (nut housing). Heavy forged-in lugs to take up side strain. Nuts can't fall out. Replaceable Tool Steel Jaws.

See Chain Wrenches under TONGS: PIPE.

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All Steel Pipe Wrench
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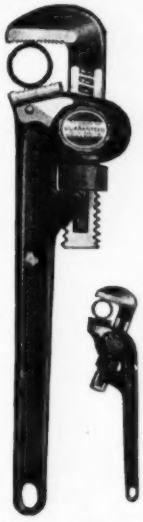
All Heavy-Duty



RIGID Straight Wrenches. Sizes 6" to 60". End Wrenches Sizes 6" to 36".

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Size	
6-E6	$1.90
8-E8	2.20
10-E10	2.85
14-E14	3.85
18-E18	5.50
24-E24	8.50
36-E36	15.00
48	25.00
60	40.00

E—End Pattern Wrench
Rubber Grip — 10", $3.60 doz.; 14", $4.80 doz.

New Heavy-Duty 7000 lb. Super-X Alloy handle. The 24" RIGID holds 3½ ton load 9½ inches from the jaw. You can't break or distort the housing. Hook and replaceable heel jaw of chrome molybdenum nickel steel. Hook jaw full-floating, with handy pipe scale. Jaws slip-and-lock proof. Adjusting nut turns easily in open housing.

RIGID
Compound Leverage Wrenches

S-2, capacity to 2"
S-4, capacity to 4½"
S-6, capacity to 6"
S-8, capacity to 8"

List Prices — S-4, $17.00; S-6, $22.00.
Prices S-2, S-8 on request.

Compound leverage, 10 times that of 48" wrench. For heavy-duty and crowded-conditions. Action of wrench and trunnion does not disturb joints already tightened. Tightens 8" pipe or loosens old rusted joints that 3 to 4 men can't move with ordinary wrenches.

Prices quoted above subject to usual trade discounts.

THE RIDGE TOOL CO.
ELYRIA, OHIO, U. S. A.

"TRIMO-ALLOY"

A NEW PIPE WRENCH MADE ENTIRELY OF DROP FORGED, HEAT TREATED ALLOY STEEL

The enormous increase in strength now accomplished by making this pipe wrench from chrome, molybdenum and nickel steel alloys gives a safety factor never before obtained in a pipe wrench.

Accident hazard is lowered, working life is prolonged, and dependable, non-locking, non-slipping operation is assured by the new, improved "Trimo-Alloy" pipe wrench.

The new tool is identified by the symbol CR-MOL stamped on the hook jaw, "Trimo-Alloy", etched on the frame, and the red Trimo tag wired to the handle. All parts are replaceable, including the long-wearing, sure-grip insert jaw.

The mill supply distributor carries complete stock of Trimo wrenches and replacements parts.

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Leading producers of quality pipe wrenches for 50 years

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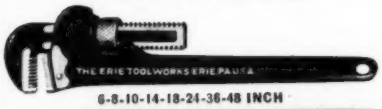
Write for Catalog and prices

Stillson Wrenches, all sizes and types



6-8-10-14-18-24-36-48 INCH

8-10-14-18 INCH

Pipemaster Wrenches Complete Line as shown

THE ERIE TOOL WORKS — ERIE, PA.

Quadriga Mfg. Co., The, Chicago, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rowell Mfg. Co., Appleton, Wis. (Combination car and pipe wrenches)
Sandvik Saw & Tool Corp., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Threadwell Tap & Die Co., Greenfield, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
U. S. Hame Co., Buffalo, N. Y.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe, Brass and Nickel

Belden Machine Co., The, New Haven, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Erie Tool Works, The, Erie, Pa.
Reed Manufacturing Co., Erie, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

Wrenches, Pipe, Chain

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Railway Track

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Klein-Logan Co., The, Pittsburgh, Pa.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

"VULCAN SUPERIOR"
PIPE and FITTINGS TONGS
EXCLUSIVE ADVANTAGES, MODERN DESIGN, 7 SIZES FOR ⅛" to 12" PIPE AND FITTINGS.
J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring St., New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

Wrenches, Ratchet

Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Hinsdale Manufacturing Co., Chicago, Ill.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Saw

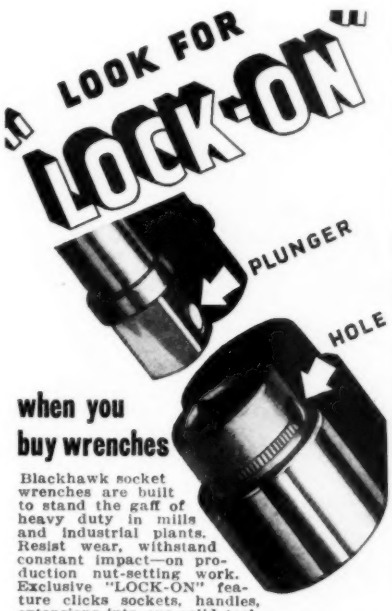
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Hoe, R., & Co., Inc., Bronx, New York.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Set Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Hartford Machine Screw Co., Hartford, Conn.
Holo-Krome Screw Corp., Bristol, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Rockford Screw Products Co., Rockford, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Socket

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford.



when you buy wrenches

Blackhawk socket wrenches are built to stand the gaff of heavy duty in mills and industrial plants. Resist wear, withstand constant impact—on production nut-setting work. Exclusive "LOCK-ON" feature clicks sockets, handles, extensions into one solid tool—speeds up work—prevents lost time. No dropping of sockets from ladder and scaffold jobs—or inside machinery housings. With Blackhawk Socket Wrenches on the job, more work is done better—net profits become bigger.

BLACKHAWK MFG. CO.
Dept. MSD Milwaukee, Wis.
Exclusive Canadian Distributor:
The Canadian Fairbanks-Morse Co., Limited
Branches in all Principal Cities

BLACKHAWK Socket Wrenches

LOWELL

REVERSIBLE RATCHET WRENCHES

1916 Pattern

No.	Length of Handle, in.	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gears Each
0	7	¼, 3/16, ½	½, 11/32	$5.00	$1.00
1	10	5/16, ½, 9/16	3/16, 9/32, 11/32	6.00	1.00
2	12	½, 5/8, 9/16, ¾	9/16, 11/32, ⅞, 11/32	7.00	1.25
3	15	5/8, 9/16, ¾, 9/16, ⅞, 11/32	11/32, 1 1/16, 1 1/8, 1¼	9.00	1.50
3½	18	1, 1 1/16, 1 1/8	. . . . .	10.00	1.50
4	18	1, 1 1/8, 1¼, 1 3/16, 1 7/16	1 1/16, 1¼, 1 7/16, 1 3/8	12.00	2.00
4½	24	1½	1 13/16	14.00	2.00

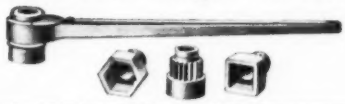
CONVENIENCE—They will turn nuts on or off without removing the Wrench, and soon make good their cost by saving labor.

GUARANTEE—We stand back of these tools in every way and warrant them in all respects to give satisfaction.

Red Face Bridge Builders' Wrenches

No.	Length of Handle, feet	Apprx. Wt. pounds	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gear Each
1	3	11	1, 1 1/16, 1¼, 1 5/16, 1 7/16	1 1/16, 1¼, 1 7/16, 1 5/8	$14.00	$2.00
2	3	14	1¼, 1 1/16, 1 5/8, 1 13/16, 2	1 13/16, 2, 2 1/16, 2 1/8	16.00	4.00
3	3	23	2, 2¼, 2 3/8, 2½	2 3/8, 2 9/16, 2¾, 2 15/16, 3 1/8	24.00	6.00
4	3½	32	2½, 2¾, 3, 3¼	3½, 3 7/8	30.00	8.00
5	3½	40	3¼, 3½, 3¾	4¼, 4 5/8	35.00	10.00

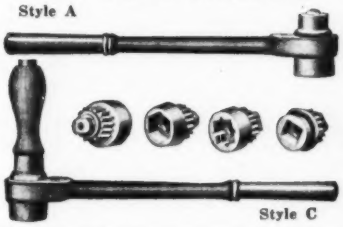
Red Socket Steel Socket Bridge Wrenches



No	Length of Handle, feet	Apprx. Weight pounds	For Nuts Short Diameter: Square or Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	2	10	1, 1 1/16, 1¼, 1 7/16, 1 5/8, 1 13/16, 2	$10.00	$3.00
1½	3	12	. . . . .	14.00	3.00
2	3	23	2, 2 3/8, 2 1/2, 2 9/16, 2¾, 2 15/16, 3 1/8	20.00	6.00
2½	4	26	. . . . .	24.00	6.00
3	3	50	3 1/8, 3½, 3 7/8, 4¼, 4 5/8, 5	40.00	12.00
3½	4	54	. . . . .	45.00	12.00

Red Socket Wrenches

Style A



Style C

No.	Length Handle Inches	For Nuts Short Diameter: Square	For Nuts Short Diameter: Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	12	3/8 taper, ½, 9/16, 11/16, ¾, 13/16, 5/8, 11/16, 7/8, 13/16, 1 1/16, 1 3/16, 1 1/8, 1 5/16, 1¼	. . . . .	Style A $4.00 Style C 5.00	$1.00 1.00
2	16	1, 1 1/16, 1 1/8, 1¼, 1¼, 1 3/8	1 1/16, 1¼, 1 3/8, 1 5/8	6.00	2.00
	20	1, 1 1/16, 1¼, 1 5/16, 1 7/16, 1 5/8, 1 13/16	1, 1 1/16, 1¼, 1 7/16, 1 5/8, 1 13/16	10.00	3.00

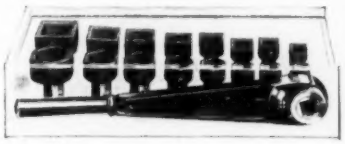
Nos. 2 and 3A

Nos. 2 and 3A

No. 2, Style A has a 1 1/16 inch hole for bolt to pass through socket.

No. 3, Style A has a 1⅛ inch hole.

Red Socket Multiplex Wrenches



No. 1—with List Prices

No. 1 Wrench has a 12-inch Handle and will take square or hexagon nuts. ¼, 5/16, 3/8, 7/16, ½, 9/16, ⅝, ¾-inch Bolt Diameters. ½, 11/32, 11/16, 31/32, ⅞, 31/32, 1 1/16, 1¼-inch Smaller Outside Diameters.

Price on Wrench Complete with sixteen Sockets $10.00
Price on Wrench only 6.00
Price on Extra Sockets, each ..... .50

No. 2—with List Prices

No. 2 Wrench has a 20-inch Handle and will take square or hexagon nuts. ¾, ⅞, 1, 1⅛, 1¼-inch Bolt Diameters. 1¼, 1 7/16, 1⅝, 1 13/16, 2-inch Smaller Outside Diameters.

Price on Wrench Complete with ten Sockets $18.00
Price on Wrench only 10.00
Price on Extra Sockets, each 1.00

LOWELL WRENCH CO.

Worcester, Mass.

California Representative, F. SOMERS PETERSON CO., 57 California St., San Francisco, Calif.

UMI

Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Channon, J. H., Corp., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Hinsdale Manufacturing Co., Chicago, Ill.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Lowell Wrench Co., Worcester, Mass. (Ratchet socket)
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Rockford Screw Products Co., Rockford, Ill.
Snap-On Tools, Inc., Kenosha, Wis.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Vichek Tool Co., The, Cleveland, Ohio.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spanner

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Lunkenheimer Co., The, Cincinnati, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Snap-On Tools, Inc., Kenosha, Wis.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spark Plug

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Hinsdale Manufacturing Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vichek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spud

American Pipe Tool Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.

ARMSTRONG

Chrome-Vanadium SOCKETS
Drives, Ratchets and Sets
A complete line—all sizes, all types. Chrome-Vanadium Steel Sockets, Chrome plated. Drop forged Ratchets, handles and extensions. Matched sets in steel cases for every need.

The Armstrong Drivelock
Drivelock feature locks socket to driver, driver to handle, etc.: make safe rigid tools. Prevents accidents for heads cannot pry or knock off. **Write for Catalog.**
Bridge Wrench to 5" Sockets

ARMSTRONG BROS. TOOL CO.
332 N. Francisco Ave., Chicago
New York Office: 199 Lafayette St.

Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Nye Tool & Machine Works, The, Chicago.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Structural and Construction

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Tap and Reamer

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Champion Blower and Forge Co., Lancaster, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Threaded Tap & Die Co., Greenfield, Mass.

Wrenches, Tool Post

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Twin

Bonney Forge & Tool Works, Allentown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Yarn and Twine, Asbestos

Carey, Philip, Co., The, Lockland, O.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Yarn, Fodder (Tarred Sisal)

American Manufacturing Co., Brooklyn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.
Wall Rope Works, Inc., New York, N. Y.

Yarn, Lath (Tarred Sisal)

American Manufacturing Co., Brooklyn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.
Wall Rope Works, Inc., New York, N. Y.

Zinc Sheets and Bars

Atlantic Zinc Works, Inc., New York, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Great Lakes Chemical Works, Detroit.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit. (Bars and slabs)
Murphy, E. L., Chicago, Ill.
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y.
Northwest Lead Co., Seattle, Wash. (Bars)

TRADE NAME INDEX

an Alphabetical List of Trade Names Employed by Manufacturers of Mill, Mine, Power, and General Industrial Supplies, Equipment and Tools (Where the Trade Name of the Product is Different from the Company Name), with the Names of the Manufacturers and the Products to Which They Refer.

THE fact that trade names appear in this list does not mean that we guarantee them to be registered or the property of the manufacturers concerned. We have simply asked these manufacturers for trade names used by them exclusively or under license from some other manufacturer, and have taken them as submitted to us, except as explained hereafter.

We have not used trade names where they are the same as the company's name or where the company's name constitutes the first part of the trade name, except where we have felt there might be some doubt as to what company the trade name belonged. In some cases, where a combination name has been submitted, such as "Smith Peerless," we have eliminated the manufacturer's name (in this example, "Smith") and used the other part of the trade name (in this example, "Peerless"). Where the trade name is the same as the manufacturer's name, the directory user can locate the latter under the product heading in the Classified List.

In cases where two or more companies have submitted the same trade name for the same product and there is any question as to the rightful owner of the trade name, we have eliminated it entirely from our list.

WARNING—For the reasons given herewith and for other reasons, inaccuracies may have occurred in this list. Therefore, no user of this directory should, without independent verification, rely upon any information appearing in this section when so doing might result in loss or damage of any kind.—Electrical Trade Publishing Co.

Where initials are shown as trade names in this list, they are grouped at the start of listings under each letter. Where two or more separated words or hyphenated words constitute a trade name, such as "Sure Hold" or "Sure-Hold," the first word standing alone determines the location of the listing, whereas when the two words are used as one, such as "Surehold," the name is listed in order according to the entire word.

A

A (in diamond)—Bull ropes. The Edwin H. Fitler Co., Philadelphia, Pa.

AA1 COPPER TIN BABBITT—Babbitt metal. Glacier Metal Co., Richmond, Va.

AAA—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.

A.B.C—Emery. Keystone Emery Mills, Philadelphia, Pa.

A.B.C.—Wire belt lacing. Kerr & Co., Inc., New York, N. Y.

ABC HEAT RESISTING BELT—Stitched canvas belting. Main Belting Co., Philadelphia, Pa.

A-C—Power transmission machinery. Allis-Chalmers Manufacturing Co., West Allis, Wis.

A.C.E.—Expansion bolt shields. Arrow Expansion Bolt Co., Marion, Ohio.

A.C.F. BERWICK—Electric metal and rivet heaters. American Car and Foundry Co., New York, N. Y.

A.C.F.—Lubricated plug type valves. American Car and Foundry Co., New York, N. Y.

AC SPRAYER—Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.

A.C.O.—Cutting oil. C. N. Sutton Chemical Co., Chicago, Ill.

A.E.M.—Hydrometers. Moeller Instrument Co., Inc., Brooklyn, N. Y.

A.M.—Drilling and tapping machines. Adolph Muehlmatt, Cincinnati, Ohio.

A-MAL-GAM—Welding compound. Smith Welding Equipment Corp., Minneapolis, Minn.

A-R MIX—Quigley Co., Inc., New York.

A-S—Circular saw set. E. C. Atkins and Co., Indianapolis, Ind.

A-S-E—Steel Equipment. All-Steel-Equip Corp., Aurora, Ill.

AARON—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ABCO—Brass ferrules, flanges, cocks, solder, nipples, etc. The Atlas Brass Foundry Co., Columbus, Ohio.

ABRAM—Railroad car movers and cement finishing tools. Main Belting Co., Philadelphia, Pa.

ACCO—Chain and utility jacks. American Chain Co., Inc., Bridgeport, Conn.

ACCOPAC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.

ACCURATE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.

ACE—Band saws. Maurey Manufacturing Corp., Chicago, Ill.

ACE—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.

ACE HIGH—Hose. Home Rubber Co., Trenton, N. J.

ACE LIGHTWEIGHT—Shovels and spades. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.

ACIDSEAL—Paint. The B. F. Goodrich Rubber Co., Akron, Ohio.

ACME—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.

ACME—Buffing compositions. Hanson-Van Winkle-Munning Co., Matawan, N. J.

ACME—Casting brushes. The Osborn Manufacturing Co., Cleveland, Ohio.

ACME—Fire clay brick. General Refractories Co., Philadelphia, Pa.

ACME—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ACME—Hand chain hoists. Union Mfg. Co., New Britain, Conn.

ACME—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.

ACME—Post hole diggers. Iwan Brothers, South Bend, Ind.

ACME—Rapping plates and draw keys. Timmis & Clissold, Bound Brook, N. J.

ACME—Scribers. The Ruleta Co., Inc., New York, N. Y.

ACME BULB—Gauge glass gaskets and washers. Gilbert & Co., Hyattsville, Md.

ACME SHIELDS—Grinder guards. Chicago Eye Shield Co., Chicago, Ill.

ACORN—Dies and holders. Greenfield Tap & Die Corp., Greenfield, Mass.

ACORN—Pump connections. Stevens, Walden, Inc., Worcester, Mass.

ACORN—Round leather belting. Graton & Knight Co., Worcester, Mass.

ACROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.

ACTENIZED SUMET—Bronze bearings. Sumet Corp., Buffalo, N. Y.

ADA-STIC—Plastic insulating cement. Botfield Refractories Co., Philadelphia, Pa.

ADACAST—Dry refractory cement. Botfield Refractories Co., Philadelphia, Pa.

ADACHROME PLASTIC SUPER-CEMENT—Chrome base cement. Botfield Refractories Co., Philadelphia, Pa.

ADAHEARTH—Chrome earth cement. Botfield Refractories Co., Philadelphia.

ADALOX—Sandpaper, cloth and combination. Behr-Manning Corporation, Troy, N. Y.

UMI

ADAMANT—Babbitt. Magnolia Metal Co., Elizabeth, N. J.
ADAMANT—Fire brick and cement. Botfield Refractories Co., Philadelphia, Pa.
ADAPATCH—Plastic fire brick material. Botfield Refractories Co., Philadelphia.
ADAPRODUCTS—High temperature cement, etc., Botfield Refractories Co., Philadelphia, Pa.
ADDOWEIGHT—Totalizing dial scales. Merrick Scale Mfg. Co., Passaic, N. J.
ADJUSTI—Sump covers and discharge pipes. Yeomans Brothers Co., Chicago.
ADJUSTO — Fuse pullers. The Safety Equipment Service Co., Cleveland, Ohio.
ADJUSTOFIT—Steel bins. Art Metal Construction Co., Jamestown, N. Y.
ADJUSTOGLAS — Goggles. The Safety Equipment Service Co., Cleveland, Ohio.
ADMIRAL—Measuring tape. Eugene Dietzgen Co., Chicago, Ill.
ADPASCO—Pump packing. Advance Packing and Supply Co., Chicago, Ill.
AECO—Metallic packing. Illinois Scully Steel Warehouse Co., Chicago, Ill.
AEMCO—Ingot iron and steel sheets and plates, and spiral welded pipe. The American Rolling Mill Co., Middletown, Ohio.
AEQUITAS — Printing scales. Merrick Scale Mfg. Co., Passaic, N. J.
AERO—Fire hose. The Republic Rubber Co., Youngstown, Ohio.
AERO-L-STAGE—Portable Compressors. Worthington Pump & Machinery Corp., Harrison, N. J.
AERO-VIBE—Vibrating screens. Allis-Chalmers Manufacturing Co., West Allis, Wis.
AER-O-MIX—Water mixer. Vogt Brothers Mfg. Co., Louisville, Ky.
AESCO—Sharpening stones, etc. American Emery & Stone Co., New York, N. Y.
AETNA—Elevator belting. The Mechanical Rubber Co., Passaic, N. J.
AETNA—Post hole diggers. Iwan Brothers, South Bend, Ind.
AFMIC—Hose. New York Belting & Packing Co., Passaic, N. J.
AGATHON—Alloy steels. Alloy Steel Div., Republic Steel Corp., Massillon, Ohio.
AGITATOR SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
AGRILITE—Bearing metal. American Injector Co., Detroit, Mich.
AGRIPPA—Clamps and tool holders. J. H. Williams & Co., New York, N. Y.
AIR BOOSTER—Blow guns. Baker-Hansen Mfg. Co., Alameda, Calif.
AIR DRAULIC—Face and knife grinders. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
AIR-GAS-POP—Relief valves. The Lunkenheimer Co., Cincinnati, Ohio.
AIR KING—Hose couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
AIR LINE—Cutting tools. Cowles Tool Co., Cleveland, Ohio.
AIR-LIQUID—Cocks. The Lunkenheimer Co., Cincinnati, Ohio.
AIR-O-IZER — Heater and ventilator, The Trane Co., LaCrosse, Wis.
AIR-VAC—Vacuum cleaners. Baker-Hansen Mfg. Co., Alameda, Calif.
AIRCO—Oxygen and acetylene electrodes and rods. Air Reduction Sales Co., New York, N. Y.
AIRCO-DAVIS-BOURNONVILLE — Welding and cutting apparatus and supplies. Air Reduction Sales Co., New York, N. Y.
AIRCRAFT—Hose clamps. Morganmade, Inc., Keene, N. H.
AIRCUSHION VALVES—Air compressor valves. Pennsylvania Pump & Compressor Co., Easton, Pa.
AIRSPRING — Automatic grease cups. Hunter Pressed Steel Co., Lansdale, Pa.
AIRVULC—Liquid rubber. Self Vulcanizing Rubber Co., Inc., Chicago, Ill.
AIRXPEL—Steam traps. Wright-Austin Co., Detroit, Mich.
AJAX—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
AJAX—Belting and hose. Hewitt Rubber Corp., Buffalo, N. Y.
AJAX—Concrete inserts. Security Insert Co., Philadelphia, Pa.
AJAX—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
AJAX—Fire extinguishers, engines, etc. The Safety Fire Extinguisher Co., New York, N. Y.
AJAX—Insulating varnishes and compounds. Sherwin-Williams Co., Cleveland, Ohio.
AJAX—Lawn sprinkler. W. D. Allen Manufacturing Co., Chicago, Ill.
AJAX—Lubricators. Consolidated Brass Co., Detroit, Mich.
AJAX—Steel loading chain and dredge chain. American Chain Co., Inc., Bridgeport, Conn.
AJAX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
AJAX—Wheelbarrows. Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
AKON—Boiler feedwater treatment. Allis-Chalmers Manufacturing Co., West Allis, Wis.
AKRO-METAL—Corrugated gaskets. Akron Metallic Gasket Co., Akron, Ohio.
AKRON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
AKRONITE—Sheet packing. Akron Metallic Gasket Co., Akron, Ohio.
AKWA — Sheet packing. Consolidated Packing & Supply Co., New York, N. Y.
ALABESTOS — Valve packing. Consolidated Packing & Supply Co., New York.
ALBANY—Grease. Adam Cook's Sons, Inc., Linden, N. J.
ALCO—Grease cups. Consolidated Brass Co., Detroit, Mich.
ALCOA ALUMINUM—Chain link fence. Page Steel & Wire Division of American Chain Co., Monessen, Pa.
ALENCO—Fire hose unit cabinets. W. D. Allen Mfg. Co., Chicago, Ill.
ALERT—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ALFALFA—Agricultural belting. Burrell Belting Co., Chicago, Ill.
ALPITE—Fire extinguishers and systems. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALPRESCO—Paint. The Reardon Co., St. Louis, Mo.
ALGCO—Mechanical leather goods. Auburn Leather Goods Co., Inc., Hartford, Conn.
ALL METAL LINE (THE)—Sawmill machinery. Memphis Machine Works, Memphis, Tenn.
ALL PURPOSE—Bench type grinder. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ALL PURPOSE SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
ALL-SERVICE—Gas masks. Mine Safety Appliances Co., Pittsburgh, Pa.
ALLCAR-J10—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
ALLEN RANDALL—Bolt clippers, chain cutters and nutsplitters. H. K. Porter, Inc., Everett, Mass.
ALLGOOD CORD—Hose. Goodall Rubber Co., Philadelphia, Pa.
ALLIGATOR—Steel belt fasteners, belt fasteners and belt cutters. Flexible Steel Lacing Co., Chicago, Ill.
ALLIGATOR—Swiss pattern files. Carson-Newton Co., Newark, N. J.
ALLIGATOR—Wrenches. John A. Roebling's Sons Co., Trenton, N. J.
ALLOWALT — Aluminous oxide wheels. Waltham Grinding Wheel Co., Waltham, Mass.
ALLOY C—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
ALLSIZE—Hose clamps. The Washburn Co., Worcester, Mass.
ALLWEATHER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALLWORK—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ALMA—Heater brush. Worcester Brush & Scraper Co. (Division Mason-Worcester Co.), Worcester, Mass.
ALMETL—Fire doors. Merchant & Evans Co., Philadelphia, Pa.
ALNOR—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
ALPHA—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
ALPHA—Stitched canvas belting. The American Belting Companies, Baltimore, Md.
ALPO—Reamers, twist drills, etc. Alvord-Polk Tool Co., Millersburg, Pa.
ALTA—Portable electric tools. Wappat, Inc., Pittsburgh, Pa.
ALUMI-SOLDER—Aluminum solder. L. B. Allen, Inc., Chicago, Ill.
ALUMIKOTE—Aluminum paint. Vita-Var Corp., Newark, N. J.
ALUMINWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
ALUNDUM—Grinding wheels and safety treads. Norton Co., Worcester, Mass.
ALUPAK—Metallic gaskets. Felt Products Mfg. Co., Chicago, Ill.
ALVOR—Constant level oil control. The Lunkenheimer Co., Cincinnati, Ohio.
ALWAYS READY—Gasoline blow torches. Schaefer & Beyer, Inc., Newark, N. J.
ALWAYS READY—Wrenches. J. H. Williams & Co., New York, N. Y.
ALWAYS RELIABLE—Torches, furnaces, plumbers' tools, smoke testing machines, etc. Otto Bernz Co., Inc., Rochester, N. Y.
AMALGUM—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
AMBEST—Metallic packing. Eureka Packing Co., and Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
AMBLER—Asbestos products. Keasbey & Mattison Co., Ambler, Pa.
AMBRAC—Sheets, wire rods, and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AMCO—Brake linings, clutch facings, packings and gaskets. Asbestos Mfg. Co., Huntington, Ind.
AMCO—Humidifying apparatus. Grinnell Co., Inc., Providence, R. I.
AMCO—Soldering equipment and metallic coating. American Solder & Flux Co., Philadelphia, Pa.
AMCO TREATED ALL WEATHER—Manila rope. American Manufacturing Co., Brooklyn, N. Y.
AMERICA—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
AMERICAN—Cold rolled strip steel and flat wire. Peter A. Frasse & Co., Inc., New York, N. Y.
AMERICAN—Files and rasps. Nicholson File Co., Providence, R. I.
AMERICAN—Industrial instruments. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
AMERICAN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
AMERICAN—Water meters. Buffalo Meter Co., Buffalo, N. Y.
AMERICAN BEAUTY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
AMERICAN MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
AMERICAN SEAL—Cement, compounds, paints, etc. The Wm. Connors Paint Mfg. Co., Troy, N. Y.
AMERICORE—Electrical wire and cables. American Steel & Wire Co., Chicago, Ill.
AMES—Condensation and vacuum pumps. Domestic Engine & Pump Co., Shippensburg, Pa.
AMES ALLOY—Packing. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
AMEXCEL—Stocks and dies. American Pipe Tool Co., Chicago, Ill.
AMEXO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
AMINCO—Refrigeration specialties. American Injector Co., Detroit, Mich.
AMORIZE — Maintenance paints. Carter Paint Co., Liberty, Ind.
AMPERE—Canvas stitched belting. Victor-Balata & Textile Belting Co., New York, N. Y.
ANACONDA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
ANACONDA — Non-ferrous sheets, rod, pipe, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
ANACONDA — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
ANAMITE—Valve discs, hydraulic packing and water hose. Consolidated Packing & Supply Co., New York, N. Y.
ANCHOR—Brass and bronze. Federated Metals Corp., New York, N. Y.
ANCHOR—Car rerailers, trench and track braces, puller-jacks and puller-hoists. T. H. Edelblute Co., Reynoldsville, Pa.
ANCHOR—Leather belting. Page Belting Co., Concord, N. H.
ANCHOR—Non-ferrous metals. Federated Metals Corp., New York, N. Y.
ANCHOR—Raw hide belt lacing. California Tanning Co., St. Louis, Mo.
ANCHOR—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
ANCHORLUTE—Pipe-joint melting compound. Technical Products Co., Pittsburgh, Pa.
ANDERSON—Oil burners, Davison Combustion Co., Pittsburgh, Pa.
ANDREW—Windmills. Duplex Mfg. Co., Superior, Wis.
ANDREWS—Sockets. Morse Twist Drill & Machine Co., New Bedford, Mass.
ANDROCK—Spring cotters. The Washburn Co., Worcester, Mass.
ANGORA BRAND — Round belting. F. Raniville Co., Grand Rapids, Mich.
ANGULAR—Steel grit. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
ANGULAR STEEL GRIT—Sand blast abrasives. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
ANHYDROUS—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
ANN ARBOR—Road rollers and baling presses. Tallman Manufacturing Co., Shelbyville, Ill.
ANNITE—Cleaning compounds. Quigley Co., Inc., New York, N. Y.
ANTELOPE—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
ANTHONY — Electric hammer attachments. Maurey Manufacturing Corp., Chicago, Ill.
ANTHRACITE—Valves. The Diamond Rubber Co., Inc., Akron, Ohio.
ANTI LINK—Spring or lock washers. The American Nut & Bolt Fastener Co., Pittsburgh, Pa.
ANTI-SLIP—Belt dressing. Geo. Callahan & Co., New York, N. Y.

ANTI SWEAT—Insulation. Johns-Manville, New York, N. Y.
APCO—Valves, steam traps, primers and boiler feed pump regulators. Automatic Primer Co., Chicago, Ill.
APEX—Carbon dioxide recorders and indicators. Uehling Instrument Co., Paterson, N. J.
APEX—Factory interior paint. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
APEX—Hand punches, lead seal presses, bench stops and soap dispensers. Charles Morrill, Inc., New York, N. Y.
APEX—Hose. W. H. Salisbury & Co., Inc., Chicago, Ill.
APEX—Round leather belting. Johnson Belting Co., New York, N. Y.
APOLLO — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
AQUA-AIR—Needle valves. The Lunkenheimer Co., Cincinnati, Ohio.
AQUAREX—Treatment for fire hose jackets. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
AQUASEAL — Waterproof joint sealing compound. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
AQUATITE—Roofing cement. The Wills Products Co., New York, N. Y.
ARCADE—Files and rasps. Nicholson File Co., Providence, R. I.
ARCADIA—Lubricators. Victor Lubricator Co., Chicago, Ill.
ARCGRIP—Short belt drives (idlers). I. G. Downs, Denver, Colo.
ARCH-CRIMP—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
ARCO—High alumina brick. General Refractories Co., Philadelphia, Pa.
ARCTIC—Automatic grease cups. W. D. Allen Mfg. Co., Chicago, Ill.
ARCTIC—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ARCTIC—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
ARIMEX—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
ARK (Brand)—Leather transmission belting. Philadelphia Belting Co., Philadelphia, Pa.
ARK-VAC (Patented)—Flat leather transmission belting for short centers. Philadelphia Belting Co., Philadelphia, Pa.
ARKANSAS—Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
ARM & HAMMER—Anvils. The Columbus Anvil & Forging Co., Columbus, Ohio.
ARMY & NAVY—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
ARMCO—Spiral welded pipe; iron, steel and stainless steel sheets, plate, strip and coils. The American Rolling Mill Co., Middletown, Ohio.
ARNO—Conveyor belt, hose and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
AROW—Food conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
ARROW—Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
ART—Grease cups. Consolidated Brass Co., Detroit, Mich.
ASBESTEX — Brake linings. Asbestos Textile Co., New York, N. Y.
ASBESTO-SPONGE-FELTED — Insulation. Johns-Manville, New York, N. Y.
ASBESTOCEL — Insulation. Johns-Manville, New York, N. Y.
ASBESTOS-METALLIC — Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
ASBESTOSITE—Motors. U. S. Electrical Motors, Inc., Los Angeles, Cal.
ASCOLOY—Rust and corrosion resisting alloy. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
ASGUM—Roof coating. American Asphalt Paint Co., Chicago, Ill.
ASHCROFT AMERICAN — Gauges. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
ASHWORTH — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
ASLIQUE—Cement floor paint. American Asphalt Paint Co., Chicago, Ill.
ASSEMBLY—Packing. Consolidated Packing & Supply Co., New York, N. Y.
AT-LAST-A-TRAILER—Trailers. Moloch Foundry & Machine Co., Kaukauna, Wis.
ATCO—Brake linings and blocks. Asbestos Textile Co., New York, N. Y.
ATHA PNEU—Alloy tool steel. Crucible Steel Co. of America, New York, N. Y.
ATLANTIC—Linen hose. American Fire Hose Co., Philadelphia, Pa.
ATLANTIC TYPE — Marine boiler feed pumps. Dean Brothers Co., Indianapolis, Ind.
ATLAS—Aluminum and leaded bronzes. Ampco Metal, Inc., Milwaukee, Wis.
ATLAS—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
ATLAS—Car movers. Appleton-Atlas Car Mover Corp., Milwaukeee, Wis.
ATLAS — Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
ATLAS—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
ATLAS—Horizontal power pump. The Deming Co., Salem, Ohio.
ATLAS — Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
ATLAS—Post hole diggers. Iwan Brothers, South Bend, Ind.
ATLAS—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
ATLAS—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
ATLASITE—Truck wheels. The Bassick Co., Bridgeport, Conn.
ATOMISTER — Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.
ATMOSET—High temperature cement. A. P. Green Fire Brick Co., Mexico, Mo.
AUROCHS — Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
AUSTIN—Separators. Wright-Austin Co., Detroit, Mich.
AUSTRALIAN—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
AUT-O-DOR—Electric door operator. Richards-Wilcox Mfg. Co., Aurora, Ill.
AUTEX—Automatic extension reels for electric lamps. The Cincinnati Specialty Mfg. Co., Inc., Cincinnati, Ohio.
AUTO-BLOC—Roller bearing hoists. David Round & Son, Cleveland, Ohio.
AUTO-MARINE—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
AUTO-SET—Circular saw miter gages. Delta Mfg. Co., Milwaukee, Wis.
AUTO START—Electric motors and grinders. U. S. Electrical Mfg. Co., Los Angeles, Calif.
AUTOCRAT — Bushing bronze. United American Metals Corp., Brooklyn, N. Y.
AUTOFYRSTOP—Fire extinguishers. Merchant & Evans Co., Philadelphia, Pa.
AUTOTHERM—Automatic relief valves. Watts Regulator Co., Lawrence, Mass.
AUTOVEYOR—Automatic trolley bucket system. Link-Belt Co., Chicago, Ill.
AUXILIARY — Graphite feeders. The Lunkenheimer Co., Cincinnati, Ohio.
AUXILIARY SCREW—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
AVALANCHE—Snow pusher. Iwan Brothers, South Bend, Ind.
AVIALITE—Rods for valve seatings and stems. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AXEMAN'S PRIDE—Tool handles. Hartwell Brothers, Memphis, Tenn.
AXIFLO—Deep well pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
AZAK—Solid woven belting. The American Belting Companies, Baltimore, Md.
AZROO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
AZTEC—Brake linings, clutch facings and packings. Asbestos Textile Co., New York, N. Y.

B

BB—Polishing lathe. Clizbe Bros. Mfg. Co., Plymouth, Ind.
B-B—Machine bolt anchors. Star Expansion Bolt Co., New York, N. Y.
B & B—Wire rope. Broderick & Bascom Rope Co., St. Louis Mo.
B-C—Milling cutters, hobs and reamers. Barber-Colman Co., Rockford, Ill.
B & C—Wrenches. Bemis & Call Co., Springfield, Mass.
B & H—Lock washers. Butcher & Hart Mfg. Co., Toledo, Ohio.
B & L—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
B. & P.—Sheet and rod packings. New York Belting & Packing Co., Passaic, N. J.
B. O.—Cocks, gauges, valves, etc. L. J. Bordo Co., Inc., Glenside, Pa.
BABBITRITE—Babbitt retaining material. Products Manufacturing Co., Milwaukee, Wis.
BABCOCK—Fire Extinguishers. American-La France and Foamite Corp., Elmira, N. Y.
BABY PLUGGER—Drill. The Dallett Co., Philadelphia, Pa.
BABY RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BACHELDER—Adjustable steam indicators. William H. Murray, Richmond Hill, New York, N. Y.
BACO—Truck wheels. The Bassick Co., Bridgeport, Conn.
BADGER—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
BADGER NEVER SLIP—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER No. 5—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER BOY—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER KING—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BAK-KUT—Leather belting. F. Raniville Co., Grand Rapids, Mich.
BAKER—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, Ohio.
BAKER FABIC—Fire hose. Hewitt Rubber Corp., Buffalo, N. Y.
BALD EAGLE — Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BALL METAL—Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
BALLTITE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
BALTO — Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
BALTOBELT—Leather belting. Baltimore Belting Co., Baltimore, Md.
BANCO—Axes and hatchets. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANKO—Scythes. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANNER—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BANNER—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
BANNER—Measuring tapes, calipers and dividers. The Lufkin Rule Co., Saginaw, Mich.
BANROC — Insulation. Johns - Manville, New York, N. Y.
BARCLAY — Fibrous metallic packing. Consolidated Packing & Supply Co., New York, N. Y.
BARCOL—Door operators, fans, etc. Barber-Colman Co., Rockford, Ill.
BARD—Adjustable guide (bushing). Armstrong Manufacturing Co., Bridgeport, Conn.
BARKEEPERS' FRIEND — Metal polish. Walter W. Miller Co., Indianapolis, Ind.
BARRELED SUNLIGHT PLASTER SEALER—Priming and sealing coat for plaster. U. S. Gutta Percha Paint Co., Providence, R. I.
BARRETT—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
BARRY—Pulleys, hangers, bearings, etc. R. & J. Dick Co., Inc., Passaic, N. J
BARTALOX—Abrasive paper. H. H. Barton & Son Co., Troy, N. Y.
BARTH—Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
BARTLETT — Tree trimmers. Bartlett Manufacturing Co., Detroit, Mich.
BARTLEY NUT & BOLT FASTENERS. Nut locks. American Nut and Bolt Fastener Co., Pittsburgh, Pa.
BASA—Hammers. Greene, Tweed & Co., New York, N. Y.
BASCO—4-cycle gasoline motor automotive equipment. Briggs & Stratton Corp., Milwaukee, Wis.
BASMOR—Gas fired boilers, conversion burners and relief valves. Bastian Morley Co., Laporte, Ind.
BASMOR EVERDUR—Copper range boilers. Bastian-Morley Co., Laporte, Ind.
BATES—Steel mule tractors. Foote Bros. Gear & Machine Co., Chicago, Ill.
BATTLESHIP—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
BAY CITY—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
BAY STATE—Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
BAY STATE—Suction hose and packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BEACH—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
BEADED END—Hose joints. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
BEAMAN STADIA ARC—Transits. W. & L. E. Gurley, Troy, N. Y.
BEAR BRAND—Marine oakum. Rochester Ropes, Inc., Jamaica, N. Y.
BEAR BRAND—Textile aprons. Gross Rubber Co., Sharon, Pa.
BEAUTY—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
BEAVER—Waterproof leather belting. Milwaukee Belting Co., Milwaukee, Wis.
BEAVERKILL—Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.
BECKER—Vertical millers and die sinkers. Reed Prentice Corp., Worcester, Mass.
BEDROCK—Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
BEECH CREEK—Fire clay brick. General Refractories Co., Philadelphia, Pa.
BELAND—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
BELCO VELVET SEAL—Faucets. The David Bell Co., Inc., Buffalo, N. Y.
BELLWOOD—Hose. Goodall Rubber Co., Philadelphia, Pa.
BELT SURFACER—Belt treatment. F. Raniville Co., Grand Rapids, Mich.

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BELTPACO—Rubber transmission belting. New York Belting & Packing Co., Passaic, N. J.
BELTAZ—Belt dressing. American Asphalt Paint Co., Chicago, Ill.
BELTINE—Belt dressing. Jos. C. Paulus & Co., Philadelphia, Pa.
BEMIS—Heater brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
BEN LOCK—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.
BENNETT—Oil cups and covers, emery wheel dressers and cutters. Bay State Stamping Co., Worcester, Mass.
BENSON—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
BERG—Concrete surfacing machines and cleaning tools. The Concrete Surfacing Machinery Co., Cincinnati, Ohio.
BERG—Pliers and chisels. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BERLOY—Bins, cabinets, shelving, tables, etc. The Berger Manufacturing Co. (Division of Republic Steel Corp.), Canton, Ohio.
BERNARD—Pliers, nippers and belt punches. The Wm. Schollhorn Co., New Haven, Conn.
BEST GRADE—Leather belting and belt cement. Detroit Oak Belting Co., Detroit, Mich.
BEST MAIDE—Tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
BESTA-MONIA—Packings and gaskets. Johns-Manville, New York, N. Y.
BESTALLIC—Asbestos pump and valve stem packing. Advance Packing & Supply Co., Chicago, Ill.
BESTALLINE—Asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
BESTOIL—Threading oil. Oster-Williams, Cleveland, Ohio.
BETA BABBITT—Babbitt metals. Glacier Metal Co., Richmond, Va.
BETAR BEST—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
BETH-CU-LOY—Copper bearing steel pipes. Bethlehem Steel Co., Bethlehem, Pa.
BETHANIZED—Zinc-coated wire. Bethlehem Steel Co., Bethlehem, Pa.
BETHCO—Barbed wire. Bethlehem Steel Co., Bethlehem, Pa.
BETTENDORF—Oil burners. The Micro Corp., Bettendorf, Iowa.
BETTER-BILT—Shovels and spades. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BETTER BUILT—Finished bushings. The Buckeye Brass & Mfg. Co., Cleveland, O.
BEVELRITE—Tool and knife grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
BIAX—Flexible shafts and machines and tapping attachments. Chas. L. Jarvis Co., Gildersleeve, Conn.
BIG BEAR—Heavy duty service station vises. The Charles Parker Co., Meriden, Conn.
BIG BULL—Red and black agricultural belting. The Hettrick Mfg. Co., Toledo, Ohio.
BIG CHIEF—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
BIG FIST—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
BIG LARRY—Quad trucks. The Service Caster & Truck Co., Albion, Mich.
BIG MIKE—Tri-wheel trucks. The Service Caster & Truck Co., Albion, Mich.
BINGHAMTON (The)—Flexible shafts and equipment. Swartz & White Mfg. Co., Binghamton, N. Y.
BITHERMAL—Temperature control for furnaces. Harold E. Trent Co., Philadelphia, Pa.
BLACK BULL—Stitched canvas belting. The Hettrick Mfg. Co., Toledo, Ohio.
BLACK CAT—Mops. Sullivan Brush Co., Terre Haute, Ind.
BLACK DEVIL—Twist drills. Arthur Colton Co., Detroit, Mich.
BLACK DIAMOND—Bolts and nuts. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
BLACK DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
BLACK DIAMOND—Carbon tool steels. Crucible Steel Co., of America, New York, N. Y.
BLACK DIAMOND—Files and rasps. Nicholson File Co., Providence, R. I.
BLACK DIAMOND—Friction tape. The M. W. Dunton Co., Providence, R. I.
BLACK DIAMOND—Tarred roofing and building felt. The Barrett Co., New York, N. Y.
BLACK GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
BLACK GOLD—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLACK LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
BLACK REXALL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
BLACK SEAL—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
BLACKFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKHAWK—Punches. Whitney Metal Tool Co., Rockford, Ill.
BLACKRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACOTE—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
BLAKE—Combination pipe vises. Prentiss Vise Co., New York, N. Y.
BLAKE EMOWLES—Steam pumps. Worthington Pump and Machinery Corp. Harrison, N. J.
BLANCO—Water softeners. Pacific Chemical Co., Los Angeles, Calif.
BLAXTICK—Belt dressing. Main Belting Co., Philadelphia, Pa.
BLIZZARD—Air coolers. Wright-Austin Co., Detroit, Mich.
BLIZZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
BLOCKER GREGORY—Textile mill receptacles. Fibre Specialty Mfg. Co., Kennett Square, Pa.
BLU-FORGE—Wrenches, nail sets and center punches. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
BLU-MOL—Hack saw blades. Millers Falls Co., Greenfield, Mass.
BLUE BIRD—Tinners' snips and adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
BLUE BOY—Differential chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
BLUE BOY—Steel trailer trucks. Nutting Truck Co., Faribault, Minn.
BLUE CENTER—Wire rope. John A. Roebling's Sons Co., Trenton, N. J.
BLUE DIAMOND—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLUE DIAMOND—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
BLUE END—Hack saws. E. C. Atkins and Co., Indianapolis, Ind.
BLUE GRASS BRAND—Wiping cloths. Louisville Sanitary Wipers Co., Inc., Louisville, Ky.
BLUE HEART—Manila rope. The Hooven & Allison Co., Xenia, Ohio.
BLUE LABEL—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
BLUE LINE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
BLUE NECK—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BLUE POINT—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BLUE RIVER—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
BLUE RIBBON—Belt dressings and wire rope lubricants. Jobbers Mfg. Co., Chicago, Ill.
BLUE SPECIAL—House force pump. The Deming Co., Salem, Ohio
BLUE STAR—Files and rasps. The Cleveland File Co., Cleveland, Ohio.
BLUE STAR—Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
BLUE STONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
BLUE STREAK—Hand lift trucks. The Yale & Towne Mfg. Co., Philadelphia, Pa.
BLUE TIP—Bronze rods. Mueller Brass Co., Port Huron, Mich.
BLUE TIP—Saw bits. Simonds Saw & Steel Co., Fitchburg, Mass.
BLUETEX—Asbestos sheet. Felt Products Mfg. Co., Chicago, Ill.
BOB-O-LINK—Fibre link mats. The Rockwood Mfg. Co., Indianapolis, Ind.
BODY-BUILDERS—C-Clamps. J. H. Williams & Co., New York, N. Y.
BOICOURT—Double stroke pumps. Midland Mfg. Co., Ft. Worth, Tex.
BOLIVIAN—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BOLL WEEVIL—Pipe tongs. J. H. Williams & Co., New York, N. Y.
BOND—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
BONDARON—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDERITE—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
BONDEX—Cement paint for masonry surfaces only. The Reardon Co., St. Louis, Mo.
BONDEX—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDFLEX—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDIT—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDTRU—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BORAX-ETTE—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
BORITE—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
BOROLON—Grinding wheels, rubbing bricks, etc. Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
BOSCH—Automatic force feed lubricators. United American Bosch Corp., Springfield, Mass.
BOSS—Belting. Home Rubber Co., Trenton, N. J.
BOSS—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
BOSS—Leather aprons. California Tanning Co., St. Louis, Mo.
BOSS—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
BOSS SUPER—Couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
BOSTON—Electric wire cutters. H. K. Porter, Inc., Everett, Mass.
BOSTONG—Pipe chain wrenches. Walworth Co., New York, N. Y.
BOULET—Micrometer test indicators. Zina Goodell Corp., Salem, Mass.
BOVE ALL—Babbitt metal. Federated Metals Corp., New York, N. Y.
BOWES—Hose racks. W. D. Allen Mfg. Co., Chicago, Ill.
BOWLUS—Joist boring machine. Ideal Commutator Dresser Co., Sycamore, Ill.
BOXOCKET—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BOXTITE—Wrenches. Stevens, Walden, Inc., Worcester, Mass.
BOYER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
BRAD FOOTE—Gears and speed hammers. Foote Gear Works, Inc., Cicero, Ill.
BRAEBURN—Tool steel. Peter A. Frasse & Co., Inc., New York, N. Y.
BRANFORD—Unions, etc. Malleable Iron Fittings Co., Branford, Conn.
BRAPACO—Asbestos joint runner and caulking jute. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BRASBESTOS—Packing rings. Federal Metallic Packing Co., Wakefield, Mass.
BREEZE-SPREADER—Circulating fans. Victor Electric Products, Inc., Cincinnati, Ohio.
BREEZO—Ventilating fans. Buffalo Forge Co., Buffalo, N. Y.
BRIAR EDGE—Scythes. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charlestor . Va.
BRICKLAYERS—Friction tape. The Mechanical Rubber Co., Passaic, N. J.
BRIDGE BUILDERS—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
BRIGGS—Wrenches. Bemis & Call Co., Springfield, Mass.
BRIGHT ZINC—Plating process. Hanson-Van Winkle-Munning Co., Matawan, N.J.
BRIGHTON—Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.
BRIKLOK—High temperature cements. General Refractories Co., Philadelphia, Pa.
BRITENOL—Mill white paint. Vita-Var Corp., Newark, N. J.
BROBAS—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
BRONCHO—Suction hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BRONCO—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BROOKBEST—Flax packing. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BROOKLYN-TROY—Flint paper. Behr-Manning Corp., Troy, N. Y.
BROOKTAN BRAND—Round belting. J. H. Hemmerdinger & Son, Brooklyn, N. Y.
BROWN STRAND—Wire rope. Wire Rope Corp. of America, New Haven, Conn.
BROWNIE—Boiler signal for low water. Wright-Austin Co., Detroit, Mich.
BROWNIE—Lubricators. Essex Brass Corp., Detroit, Mich.
BROWNIE—Padlocks. Master Lock Co., Milwaukee, Wis.
BROWNING—Paper pulleys, fibre frictions and offset keystock. Ohio Valley Pulley Works, Inc., Maysville, Ky.
BRUNOTTE—Sewage screens. Link-Belt Co., Chicago, Ill.
BRUTE—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
BUCK HORN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BUCKEYE—Air hose. New York Belting & Packing Co., Passaic, N. J.
BUCKEYE—Bolts. The Lamson & Sessions Co., Cleveland, Ohio.
BUCKEYE—Lawn mowers, pumps, etc. Mast, Foos & Co., Springfield, Mass.
BUCKEYE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUCKEYE—Tool handles. Hartwell Brothers, Memphis, Tenn.
BUCKEYE—Transmission belting, hose and splicing tape. The Mechanical Rubber Co., Passaic, N. J.

BUCKEYE—Steel and contractors' wheelbarrows. The Toledo Wheelbarrow Co., Toledo, Ohio.
BUCKEYE — Weldless wire chain. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
BUCKSKIN—Hose. Goodall Rubber Co., Philadelphia, Pa.
BUCO—Metal cleaners, detergents, etc. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
BUFCO—Forges. Buffalo Forge Co., Buffalo, N. Y.
BUFFALO—Combination tinners' snips. Niagara Machine & Tool Works, Buffalo, N. Y.
BUFFALO—Elevator buckets. Link-Belt Co., Chicago, Ill.
BUFFALO—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BUFFALO BALL—Rubber patches. R. Hoffeld & Co., Buffalo, N. Y.
BULL—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
BULL DOG — Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
BULL DOG—Car movers. Safety Wrench & Appliance Co., Worcester, Mass.
BULL-DOG—Casters. The Service Caster & Truck Co., Albion, Mich.
BULL DOG—Clamps, bench vises and tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
BULL DOG—Hose, belting, friction tape, welding tubing and rubber matting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BULL DOG — Hose coupling and hose mender. W. D. Allen Mfg. Co., Chicago.
BULL DOG—Leather aprons. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULL DOG—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
BULL DOG—Shaft couplings. Huron Industries, Inc., Alpena, Mich.
BULL DOG—Wire rope clips. The Lamson & Sessions Co., Cleveland, Ohio.
BULL DOG—Wrenches. J. H. Williams & Co., New York, N. Y.
BULL-PUP—Die stocks. Oster-Williams, Cleveland, Ohio.
BULL TERRIER—Wrenches. J. H. Williams & Co., New York, N. Y.
BULL'S HEAD—Leather belting and packings. Chas. A. Schieren Co., New York.
BULLDOG—Coil and sash chain. The Chain Products Co., Cleveland, Ohio.
BULLDOG—Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULLDOZER—Shallow and deep well power pumps. The F. E. Myers & Bro. Co., Ashland, Ohio.
BULLFROG—Wheelbarrows, scrapers and concrete carts. Toledo Wheelbarrow Co., Toledo, Ohio.
BULLSEYE—Locomotive lubricators. Detroit Lubricator Co., Detroit, Mich.
BUNKER HILL BRAND—Lead products and zinc. Northwest Lead Co., Seattle, Wash.
BURMALINE—Transmission belting. Burrell Belting Co., Chicago, Ill.
BURNHAM—Pumps. Union Steam Pump Co., Battle Creek, Mich.
BURNISHINE—Metal polish, etc. J. C. Paul & Co., Chicago, Ill.
BURRELL—Gas masks, indicators, etc. Mine Safety Appliances Co., Pittsburgh.
BURT SOLAR ATTACHMENT—Transits. W. & L. E. Gurley, Troy, N. Y.
BUSS—Electric fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSS SUPER-LAG FUSES — Renewable fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSSLIGHT—Portable adjustable electric lamps. Bussmann Mfg. Co., St. Louis, Mo.
BUSY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUTTERFLY—Plug drills. Ingersoll-Rand Co., New York, N. Y.
BUZZEL — Industrial gas equipment. Charles A. Hones, Inc., Baldwin, N. Y.
BYR-MA-CO—Grease and oil dissolver. The C. G. Buchanan Chemical Co., Cincinnati, Ohio.

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C. B. G.—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
C C QUALITY—Dredge and sling chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
C.E.S. CO.—Goggles. Chicago Eye Shield Co., Chicago, Ill.
C-H—Electric motor controllers, valve control and electric heaters. Cutler-Hammer, Inc., Milwaukee, Wis.
C&H—Faucets, etc. Cordley & Hayes, New York, N. Y.
C. & L. QUALITY LINE—Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.
C-H-L—Round belting. Geo. Rahmann & Co., New York, N. Y.
C-M—Electric wire rope hoists and overhead cranes. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
C.M.C.—Hoists. Construction Machinery Co., Waterloo, Iowa.
CMT—Unit expansion clutches. Conway Clutch Co., Cincinnati, Ohio.
C.N.I.—Chrome nickel iron pipe. Walworth Co., New York, N. Y.
C. O. OBERG BRAND — Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
C P—Pneumatic and electric tools, compressors, etc. Chicago Pneumatic Tool Co., New York, N. Y.
"CV"—Chrome-vanadium wrenches. Bonney Forge and Tool Works, Allentown, Pa.
CABLE LUBRICATOR—Wire cable dressing. F. Raniville Co., Grand Rapids, Mich.
CABLE PULLING — Underground cable pulling compound. Adam Cook's Sons, Inc., Linden, N. J.
CACTUS—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
CAD—Bolts, nuts, washers, clamps, etc. Standard Shop Equipment Co., Philadelphia, Pa.
CADILLAC (CLEMENTS-CADILLAC)—Portable electric blowers, sprayers, suction cleaners and blow torches. Clements Mfg. Co., Chicago, Ill.
CADOL—Liquid grinding compound. D. A. Stuart Oil Co., Chicago, Ill.
CADUX—Cadmium plating process. Hanson-Van Winkle-Munning Co., Matawan, N. J.
CALDWELL—Hose straps and pliers. W. D. Allen Mfg. Co., Chicago, Ill.
CALDWELL—Spiral conveyors, rotor lifts, car spotters, variable speed stoker drives, underfeed automatic stokers, speed reducer stock drives for conveyors and elevators, elevator buckets, bolts, boots and casings, automatic grain shovels, etc. Link-Belt Co., Chicago, Ill.
CALIBESTOS — Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
CALIFORNIA—Sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CALLAHAN — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
CALUMET—Machinery steels. Crucible Steel Co. of America, New York, N. Y.
CALYX—Core drills. Ingersoll-Rand Co., New York, N. Y.
CAMBRIA—Wire fence. Bethlehem Steel Co., Bethlehem, Pa.
CAMERON—Pumps. Ingersoll-Rand Co., New York, N. Y.
CAMPBELL—Chain and wrenches. International Chain & Mfg. Co., York, Pa.
CAMPBELL—Cotter pins. American Chain Co., Inc., Bridgeport, Conn.
CANDENS—Hot surface paint. Tnemec Co., Kansas City, Mo.
CANNON BALL—Door hangers. Starline, Inc., Harvard, Ill.
CAN'T BREAK 'EM—Tool handles. O. P. Link Handle Co., Salem, Ind.
CAN'T SPLIT—File and soldering copper handles and tinners' wallets. Hy-Tools, Inc., Buffalo, N. Y.
CANTILEVER — Pipe chain wrenches. Heller Bros. Co., Newark, N. J.
CANTOL—Belt wax, etc. E. C Atkins and Co., Indianapolis, Ind.
CANVAS BACK—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.
CAP—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
CAPITAL—Brooms and brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
CAPITOL—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
CARBEX—Refractories. McLeod & Henry Co., Troy, N. Y.
CARBEX—Silicon carbide brick. General Refractories Co., Philadelphia, Pa.
CARBIC — Floodlights. The Linde Air Products Co., New York, N. Y.
CARBICON-DURITE—Sand paper, cloth and combination. Behr-Manning Corporation, Troy, N. Y.
CARBO MAGNETO — Grinding wheels, knife sharpeners, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
CARBO OXILITE—Grinding wheels. Goodrich Grinding Wheel Co., Chicago, Ill.
CARBON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CARBONITE — Abrasive grains. General Abrasive Co., Inc., Niagara Falls, N. Y.
CARBONIZING COATING—Iron and steel paint. Vita-Var Corp., Newark, N. J.
CARBORITE — Silicon carbide wheels. Vitrified Wheel Co., Westfield, Mass.
CARBOWALT — Silicon carbide wheels. Waltham Grinding Wheel Co., Waltham, Mass.
CARDINAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
CAREYSTONE — Asbestos shingles and sheathings. The Philip Carey Co., Lockland, Cincinnati, Ohio.
CARLSON—Pliers. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
CARTON—Stitched canvas belting and belt dressing. The American Belting Companies, Baltimore, Md.
CARZAK—Stitched canvas belting. The American Belting Companies, Baltimore, Md.
CASCO—Leather belting and packings. Chas. A. Schieren Co., New York, N. Y.
CASE-HARDO—Case hardening compound. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
CASLER—Offset boring head. Westcott Chuck Co., Oneida, N. Y.
CAST-REFRACT — Castable refractory. Quigley Co., New York, N. Y.
CASTOROL—Belt dressing. A. W. Chesterton Co., Boston, Mass.
CAT—Forged steel elbows and fittings. Central Forging Co., Catawissa, Pa.
CATARACT—Hose. Goodall Rubber Co., Philadelphia, Pa.
CATAWISSA—Forged steel pipe unions. The Central Forging Co., Catawissa, Pa.
CATLIN—Keyseaters. Chattanooga Machinery Co., Chattanooga, Tenn.
CAUSUL—Metal gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
CEE TEE CO.—Pliers. Crescent Tool Co., Jamestown, N. Y.
CELITE—Mineral filters. Johns-Manville, New York, N. Y.
CELFOR—Drills, reamers and countersinks. Clark Equipment Co., Buchanan, Mich.
CELORON—Gears, gear blanks and valve discs. Continental-Diamond Fibre Co., Newark, Del.
CENTAUR—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CENTRAL—Alloy steel. Peter A. Frasse & Co., Inc., New York, N. Y.
CENTRIFUGAL—Leather belting. McLean Manufacturing Corp., New York, N. Y.
CENTRIFUGAL—Vibrating screens. Allis-Chalmers Manufacturing Co., West Allis, Wis.
CENTRIPAC — Packings and gaskets. Johns-Manville, New York.
CENTURY—Valves. H. Belfield Co., Philadelphia, Pa.
CEPECO—Chain. The Chain Products Co., Cleveland, Ohio.
CESCO—Boiler and condenser tube cleaners, packing, thermometers and drain pipe solvent. Chicago Engineer Supply Co., Chicago, Ill.
CESCO—Toe guards. Chicago Eye Shield Co., Chicago, Ill.
CESCOWELD — Welding glass. Chicago Eye Shield Co., Chicago, Ill.
CHALLENGE—Elevator belting. The Republic Rubber Co., Youngstown, Ohio.
CHALLENGE — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CHALLENGE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
CHALLENGE — Packing. Home Rubber Co., Trenton, N. J.
CHALLENGE BRAND — Pipe nipples. Frick-Reid Supply Corp., N. S. Pittsburgh, Pa.
CHALLENGER—Turn power, spur gear, gravity lowering chain hoists. Colling Hoist Co., Danville, Ill.
CHAMP—Padlocks. Master Lock Co. Milwaukee, Wis.
CHAMPION — Automatic alcohol blow torches. B. Lenk Mfg. Co., Newton Lower Falls, Mass.
CHAMPION — Chain wrenches Greene, Tweed & Co., New York, N. Y.
CHAMPION—Hydraulic water pumps. The Bishop & Babcock Sales Co., Cleveland, O.
CHAMPION—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
CHAMPION—Spray nozzle. W. D. Allen Mfg Co., Chicago, Ill.
CHAMPION—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
CHAMPION — Post hole diggers. Iwan Brothers, South Bend, Ind.
CHAMPION—Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
CHAMPION HOLDERS—Steel stamp holders. Jas. H. Matthews & Co., Pittsburgh.
CHAMPION ROLLER DIE—Saw swages. Edwin G. Shortridge & Co., Kokomo, Ind.
CHANNELLOCK — Champion. DeArment Tool Co., Meadville, Pa.
CHAPMAN—Ball bearings. Transmission Ball Bearing Co., Inc., Buffalo, N. Y.
CHARM—Wrenches. Arthur Priddle, San Francisco, Calif.
CHARTER OAK—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
CHATTERTON — Insulating compounds. McGill Manufacturing Co., Valparaiso, Ind.
CHEBECO—Stitched canvas belting. Chesapeake Belting Co., Baltimore, Md.

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CHENEY—Hammers. Prentiss Vise Co., New York, N. Y.
CHERRY HEAT — Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CHESTER—Wrought iron and steel pipe, tubing and casing. South Chester Tube Co., Chester, Pa.
CHEX—Wall sealer. The Reardon Co., St. Louis, Mo.
CHICAGO — Anchoring devices. Chicago Expansion Bolt Co., Chicago, Ill.
CHICAGO—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
CHICAGO — Cup and flange leathers, gears and pinions, blanks, mallets, hammers and mauls and leather belt cement. The Chicago Rawhide Mfg. Co., Chicago, Ill.
CHICAGO—Injectors, ejectors, lubricators and water gauges. Ohio Injector Co., Wadsworth, Ohio.
CHICAGO—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
CHICAGO—Wire grips. M. Klein & Sons, Chicago, Ill.
CHICAGO GOOSE NECK—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CHICAGO KNOWLES — Steam pumps. Furness Bros. Co., Chicago, Ill.
CHIEF — Socket wrenches. Blackhawk Mfg. Co., Milwaukee, Wis.
CHILDS—Fire extinguishers and chemical engines. American-LaFrance & Foamite Corp., Elmira, N. Y.
CHIP CHASER—Die stocks. Oster-Williams, Cleveland, Ohio.
CHOICE—Leather belting. O'Meara Belting Co., Omaha, Neb.
CHROMAL—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
CHROME — Leather packing. Michigan Leather Packings Co., Inc., Detroit, Mich.
CHROMIX—Refractory cement. Quigley Co,. Inc., New York, N. Y.
CHROMBITS—Bits or teeth for inserted point saws. The Ohlen-Bishop Co., Columbus, Ohio.
CHROMO—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
CHROMSAWS—Circular saws. The Ohlen-Bishop Co., Columbus, Ohio.
CHROMSHANKS — Shanks for inserted point saws. The Ohlen-Bishop Co., Columbus, Ohio.
CID—Shallow and deep well water system pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CINCH—Expansion bolts and anchors. National Lead Co., New York, N. Y.
CINCH STEEL CEMENT—Welding compound. The W. R. Chapin Co., Indianapolis, Ind.
CINCH-WELD — Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
CINCINNATI (THE) — Electric drills, screw drivers, nut setters, tappers, grinders, buffers and high speed cut off machines. The Cincinnati Electrical Tool Co., Cincinnati, Ohio.
CINCINNATI TRUSS—Step ladder. The Rich Pump and Ladder Co., Cincinnati, O.
CINCINNATUS—Transmission belting and hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CINO—Iron body gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
CIRCLE—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
CIRCLE A—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
CLARK'S—Rope fire escape. Rope Fire Escape Co., Philadelphia, Pa.
CLE-FORGE—Drills. The Cleveland Twist Drill Co., Cleveland, Ohio.
CLEAN-AIR—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
CLEAN WATER—Intake screens. Link-Belt Co., Chicago, Ill.
CLEANCUT GUIDE—Hand metal cutting machine. Jos. C. Paulus & Co., Philadelphia, Pa.
CLEANSER & STUFFER—Belt dressing and cleaner. F. Raniville Co., Grand Rapids, Mich.
CLEANWELL — Welding and brazing fluxes. K-G Welding and Cutting Co., Inc., New York, N. Y.
CLEANUM—Hand soap. The White & Bagley Co., Worcester, Mass.
CLEO—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLERMONT—Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
CLEVELAND — Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
CLEVELAND—Conveyor belting, suction hose and compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLEVELAND—Friction clutches. Western Engineering & Mfg. Co., Chicago, Ill.
CLEVELAND — Pump chain and pump buckets. The Chain Products Co., Cleveland, Ohio.
CLEVELAND—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
CLEVELAND—Tacks and nails. The Bishop & Babcock Sales Co., Cleveland, Ohio.
CLEVELAND FLAMING TORCHES — Road torches. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CLEVELAND TYPE—Line shaft bearings. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
CLEVER-CUTTER—Electric butcher saw. Wells Manufacturing Corp., Three Rivers, Mich.
CLIPTON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CLIMAX—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
CLIMAX — Core wire straighteners. Worthington Pump and Machinery Corp., Harrison, N. J.
CLIMAX—Expansion shields. The Brohard Co., Philadelphia, Pa.
CLIMAX—Grease cups. American Injector Co., Detroit, Mich.
CLIMAX—High pressure pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
CLIMAX—Malleable ground joint unions. Thos. Devlin Mfg. Co., Burlington, N. J.
CLIMAX—Scoop trucks. Lansing Co., Lansing, Mich.
CLIMAX—Solid cotton belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
CLIMAX—Steel belt lacing.—Manufacturers' Belt Hook Co., Chicago, Ill.
CLIMAX—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CLIMAX ALLOY—Staybolts, etc. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
CLINCHING—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
CLINGSTONE—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
CLINGTITE—Leather belting. Geo. Rahmann & Co., New York, N. Y.
CLINTON—Reinforcing fabric and wire lath. Wickwire Spencer Steel Co., New York, N. Y.
CLIPPER — Belting, hose, packing and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
CLIPPER—Manila rope. American Manufacturing Co., Brooklyn, N. Y.
CLIPPER NAVY—Marine oakum. American Manufacturing Co., Brooklyn, N. Y.
CLOSED BACK—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
CLOTHFLEX WHEEL—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COAL BLUFF—Coal shovels and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
COASTER — Apparatus sirens. Federal Electric Co., Chicago, Ill.
COBBS—Rod packing. New York Belting & Packing Co., Passaic, N. J.
COCHECO—Leather belting and rawhide lace leather. I. B. Williams & Sons, Dover, N. H.
COES—Wrenches. Bemis & Call Co., Springfield, Mass.
COGASA—Gaskets and rod packings. Rhopac Products Corp., Chicago, Ill.
COIL—Brush and scraper combined. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
COIL KNOT—Wire sections and wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
COIN—Bronze grease cups. The Wm. Powell Co., Cincinnati, Ohio.
COLARCHROME—Rouges for chromium plate. E. Reed Burns Mfg. Corp., Brooklyn, N. Y.
COLE—Grip nuts. The Robinson Tool Works, Inc., Waterbury, Conn.
COLD-FORGED—Wing and cap nuts and thumb screws. Parker-Kalon Corp., New York, N. Y.
COLLINS—Flue expanders. Ajax Manufacturing Co., Pittsburgh, Pa.
COLLS—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
COLONEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
COLONIAL—Chopping axes. Man Edge Tool Co., Lewistown, Pa.
COLONIAL OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
COLORADO—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
COLOR-BESTOS—Mill white, factory interior paint. Technical Products Co., Pittsburgh, Pa.
COLORTOP—Plug fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
COLT'S—Woodworking clamps. Batavia Clamp Co., Inc., Batavia, N. Y.
COLUMBIA—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
COLUMBIA — Lubricators. Consolidated Brass Co., Detroit, Mich.
COLUMBUS — Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
COLVIN—Rawhide hammers. Greene, Tweed & Co., New York, N. Y.
COLVULC—Liquid and plastic rubbers. Manson Glover, Stoughton, Mass.
COMBER-WATERPROOF—Leather belting. Geo. Rahmann & Co., New York, N. Y.
COMBI—Combination portable electric drill and grinder. Wodack Electric Tool Corp., Chicago, Ill.
COMBINATION—Sectional piston packing. A. W. Chesterton Co., Boston, Mass.
COMBINATION—Steam traps (Float and Thermostatic). Wright-Austin Co., Detroit, Mich.
COMBINATION ANCHOR—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
COMET—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
COMMANDER—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
COMMERCIAL—Ball bearings. Schatz Mfg. Co., Poughkeepsie, N. Y.
COMMERCIAL—Phosphor bronze bars. Buckeye Brass & Mfg. Co., Cleveland, O.
COMPASS—Cord belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
COMPENSATED BELT — Transmission belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPETITION—Chicago Expansion Bolt Co., Chicago, Ill.
COMPETITOR—Friction clutches. Kinney Manufacturing Co., Boston, Mass.
COMPO—Self-lubricating bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
COMPOSITE—Rubber hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPOUND LEVER—Snips and bench shears. Bartlett Manufacturing Co., Detroit, Mich.
COMPRESS WHEEL (THE)—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COMPRESSOR—Hose. Goodall Rubber Co., Philadelphia, Pa.
CONCAVE—Woodworking cutters. S. R. M. Orum, Inc., Philadelphia, Pa.
CONCORD —Leather belting. Page Belting Co., Concord, N. H.
CONCRETE BUSHER — Pneumatic tool. The Dallett Co., Philadelphia, Pa.
CONCREWALTUM — Paint. Vita-Var Corp., Newark, N. J.
CONDEX—Underground cable. Simplex Wire & Cable Co., Boston, Mass.
CONDOR—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CONDOR—Tool handles. American Handle Co., Jonesboro, Ark.
CONGO—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
CONGO—Steam hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CONGO—Suction hose. New York Belting & Packing Co., Passaic, N. J.
CONGRESS—Packing. Consolidated Packing & Supply Co., New York, N. Y.
CONIFLO—Pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
CONOVALVE—Automatic control valves. The Fisher Governor Co., Marshalltown, Iowa.
CONSERVO — Belting. Hewitt Rubber Corp., Buffalo, N. Y.
CONSOLCO — Leather cups and asbestos packing. Consolidated Packing & Supply Co., New York, N. Y.
CONSOLIDATED AMERICAN — Safety and relief valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
CONSTANT LEVEL—Oilers. Speedway Mfg. Co., Cicero, Ill.
CONSTRUCTOR—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
CONTACT POINT—Coil files. Nicholson File Co., Providence, R. I.
CONTRACTOR—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
CONTRACTORS—Suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CONVEYOR WEIGHTOMETER — Conveyor scales. Merrick Scale Mfg. Co., Passaic, N. J.
CONWAX—Canvas belting. Gandy Belting Co., Grand Rapids, Mich.
COOKSON—Steam and oil separators and steam traps. The D. T. Williams Valve Co., Cincinnati, Ohio.
COOLING CUTTING — Oil. Armstrong Mfg. Co., Bridgeport, Conn.
COOLKUTTER—Tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
COON—Pipe joint cement Hinds and Coon Co., Boston, Mass.
COPALOY—Babbitt. Michigan Smelting & Refining Co., Detroit, Mich.
COPPER HARD—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
COPPER KING—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.

COPPER QUEEN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
COPPERINE C — Babbitt metal. Erie White Metal Co., Erie, Pa.
COPPERLUM—Electric glue pots. Chas. E. Francis Co., Rushville, Ind.
COPPEROID—Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
COPPERSTEEL—Bins. R. H. Beaumont Co., Philadelphia, Pa.
COP-R-LOY—Metalware, wire and wire products. Wheeling Corrugating Co., Wheeling, W. Va.
CORBESTOS—Asbestos sheet with metal core. Victor Mfg. & Gasket Co., Chicago, Ill.
CORDEAU BICKFORD—Detonating fuse. Hercules Powder Co., Inc., Wilmington, Del.
COREX—Silicon carbide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
CORKER—Hog beater belt. The Mechanical Rubber Co., Passaic, N. J.
CORKLASTIC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.
CORLISS VALVE—Steam traps. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
COROCO—Rope and twine. Columbian Rope Co., Auburn, N. Y.
CORPORATION STYLE—Push Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
CORRY—Check valves. Trill Indicator Co., Corry, Pa.
CORSICAN—Hose. Goodall Rubber Co., Philadelphia, Pa.
COUNCIL—Hose and packings. Consolidated Packing & Supply Co., New York, N. Y.
COUNTOMETER—Counting machines. Durant Manufacturing Co., Milwaukee, Wis.
COVOCAST—Manholes and catch basins. Covington Machine Co., Inc., Covington, Va.
CRACKPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
CRAFTSMAN—Woodworking machinery. Maurey Manufacturing Corp., Chicago, Ill.
CRESCENT—Bronze globe valves. The Wm. Powell Co., Cincinnati, Ohio.
CRESCENT—Carbon tool steels and drill rods. Crucible Steel Co. of America, New York.
CRESCENT—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
CRESCENT—Emery wheel dresser cutter. Curtin-Hebert Co., Inc., Gloversville, N. Y.
CRESCENT—Gauge cocks. Wright-Austin Co., Detroit, Mich.
CRESCENT—Grinders and polishing machines. Cutter Machine Co., St. Louis, Mo.
CRESCENT—Hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
CRESCENT—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
CRESCENT—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRESCENT—Try-cocks. Wright-Austin Co., Detroit, Mich.
CRESCENT—Welding and tempering compound. Anti-Borax Compound Co., Fort Wayne, Ind.
CRESCENT—Wire rope. American Cable Co., Inc., Wilkes Barre, Pa.
CRESCENT CHATTERTON—Compounds. McGill Mfg. Co., Valparaiso, Ind.
CRESCENT GROUND — Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
CRESTO—Kalsomine. The Reardon Co., St. Louis, Mo.
CRICKET—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRISS-CROSS — Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
CROCCITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
CROSBY—Wire rope clips. American Hoist & Derrick Co., St. Paul, Minn.
CROSS—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
CROTON—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
CROW—Dry pipe tapping machines. Hays Manufacturing Co., Erie, Pa.
CROWN—Dredge chain. The McKay Co., Pittsburgh, Pa.
CROWN—Leather belting. Page Belting Co., Concord, N. H.
CROWN — Paint spray equipment, etc. Simplex Spray Equipment Co., Chicago, Ill.
CROWN—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CROWN-WILSON—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
CRUNDUMSAND — Granular refractory. Keystone Refractories Co., New York, N. Y.
CRUSCA—Drill steels. Crucible Steel Co. of America, New York, N. Y.
CRUSHER—Babbitt. Gardiner Metal Co., Chicago, Ill.
CRYSTAL BAY—Emery cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
CRYSTAL FALLS—Wiping cloths and waste. Cook & Riley, Inc., Chicago, Ill.
CRYSTAL GARNET — Garnet paper and cloth. H. H. Barton & Son Co., Troy.
CRYSTOLON—Bench stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
CRYSTOLON—Grinding wheels. Norton Co., Worcester, Mass.
CRYSTOLON-SILICON CARBIDE — Sharpening stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
CUB—Boiler scaler. The Dallett Co., Philadelphia, Pa.
CUB—Drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
CUB—Portable loaders. Link-Belt Co., Chicago, Ill.
CUB—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
CUMBERLAND—Shovels. American Manufacturing Co., Chattanooga, Tenn.
CUMMINGS — Portable forges. Furness Bros. Co., Chicago, Ill.
CUMSCO—Shafts. Cumberland Steel Co., Cumberland, Md.
CUPID—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
CUPLEX STEEL HORSES—Steel horses. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CURROLA—Oils, greases, packings, etc. Curry Brothers Oil Co., Boston, Mass.
CURRYBESTOS — Roof coating. Curry Brothers Oil Co., Boston, Mass.
CURTIS—Universal joints. Boston Gear Works, Inc., North Quincy, Mass.
CURVEX—Milling cutters. Pratt & Whitney Co., Hartford, Conn.
CYCLONE—Exhaust heads. Wright-Austin Co., Detroit, Mich.
CYCLONE — Hand and electric chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
CYCLONE — Lubricators. Essex Brass Corp., Detroit, Mich.
CYCLOPS—Transmission belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CYLINDER—Leather belting. Graton & Knight Co., Worcester, Mass.
CYLINDO — Marking pots. Binney & Smith Co., New York, N. Y.

D

D-E—Machine knives and shear blades. Detroit Edge Tool Works, Detroit, Mich.
DH-I—Ball bearings. Dodge Manufacturing Corp., Mishawaka, Ind.
D-LITE—Lanterns. R. E. Dietz Co., New York, N. Y.
D M T—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
DS—Type take-ups. Link-Belt Co., Chicago, Ill.
D-PORTABLE—Suction hose. New York Belting & Packing Co., Passaic, N. J.
D-V—V-belt drives and motorized variable speed transmissions. Dodge Manufacturing Corp., Mishawaka, Ind.
DAGGETT — Loose pulleys, friction clutches and hanger bearings. Chicago Pulley & Shafting Co., Chicago, Ill.
DAHLIA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAISY — Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
DAISY—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAKOTA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DALBO—Hose couplings. The Dallett Co., Philadelphia, Pa.
DALLOYL—Pneumatic tool oil. The Dallett Co., Philadelphia, Pa.
DALWELD—Detachable cable connectors. The Dallett Co., Philadelphia, Pa.
DAMIT—Joint-sealing compound. Quigley Co., Inc., New York, N. Y.
DANDY—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DANDY—Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
DANDY—Oiler assortments. Eagle Manufacturing Co., Wellsburgh, W. Va.
DANDY—Sand suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
DANDY NEW MULESKIN — Leather aprons. California Tanning Co., St. Louis, Mo.
DANIEL BOONE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
DAR-A-LOY—Hard bronze metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DARB—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
DARCOVA—Pump valve cups. Darling Valve & Mfg. Co., Williamsport, Pa.
DARVAL — Semi-steel metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DASCO—Quenching and tempering oils. D. A. Stuart Oil Co., Chicago, Ill.
DAVENPORT—Oil engines. The Micro Corp., Bettendorf, Iowa.
DAY-STEEL PULLEYS—Single and multiple pressed steel and groove pulleys. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DAYCOIL—V-belts. The Dayton Rubber Mfg. Co., Dayton, Ohio.
DAYTON COG-BELT—V-belts and drives. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DE LUXE—Fire hose cabinets. Wirt & Knox Mfg. Co., Philadelphia, Pa.
DEAD SET—Log rolls. Rodney Hunt Machine Co., Orange, Mass.
DEAN—Mechanical boiler tube cleaner. The Wm. B. Pierce Co., Buffalo, N. Y.
DEANE — Power pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
DEEPWELL—Chain. Chain Belt Co., Milwaukee, Wis.
DEEPWELL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
DEFENDER — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DEFIANCE — Belts, hose, packing, mats, valves and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DEFLECTO—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
DEGRACO—Paints. Detroit Graphite Co., Detroit, Mich.
DELAWARE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
DELHI—Hose, belting, packing, matting and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DELTA—Cranes, trolleys, etc. Newhall Chain Forge & Iron Co., New York, N. Y.
DELTA—Hose. New York Belting & Packing Co., Passaic, N. J.
DELUGE — Suction and bilge pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
DELVA—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
DEPENDABLE—Belting and leather products. Himmelein & Bailey, Inc., Camden, N. J.
DEPENDABLE—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DEPENDABLE—Tool handles. O. P. Link Handle Co., Salem, Ind.
DERBY—Plain steel grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DESMOND—Injectors and ejectors. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DESMOND HUNTINGTON — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DETERGINE—Detergent. Duryea Manufacturing Co., Bayonne, N. J.
DETROIT—Return trap. Nason Manufacturing Co., New York, N. Y.
DEXTER—Heat valve. The Swartwout Co., Cleveland, Ohio.
DEXTRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
DI-BILT—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DI-CO—Rotary driller's hose and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DI-EN-KEY—Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
DIABLO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DIACORD—Flat cord belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DIAMO—CARBO—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DIAMOND—Cast brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIAMOND—Crushed steel abrasive. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
DIAMOND—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
DIAMOND—Expansion bolts, etc. Newhall Chain Forge & Iron Co., New York.
DIAMOND — Fibre receptacles, sheets, rods, tubes, washers, gears, etc. Continental-Diamond Fibre Co., Newark, Del.
DIAMOND—Picker loops. E. H. Jacobs Manufacturing Co., Danielson, Conn.
DIAMOND A—Brass unions. Rhode Island Fittings Co., Hillsgrove, R. I.
DIAMOND D — Safety disc friction clutches. Dodge Manufacturing Corp., Mishawaka, Ind.
DIAMOND DISC—Respirator masks for dust protection. Hygeia Respirator Co., New York, N. Y.
DIAMOND FIBRE—Boxes, cans, trucks, washers, etc. Continental-Diamond Fibre Co., Newark, Del.

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DIAMOND G—Bronze bushings. E. A. Williams & Son, Inc., Jersey City, N. J.
DIAMOND-H—Fire clay brick. General Refractories Co., Philadelphia, Pa.
DIAMOND JO — High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
DIAMOND N—Loading chain, etc. Newhall Chain Forge & Iron Co., New York.
DIAMOND S—Sisal rope. Edwin H. Fitler Co., Philadelphia, Pa.
DIANA—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DICKBELT — Transmission, conveying and elevating belting. R. & J. Dick Co., Inc., Passaic, N. J.
DICKROPE—V-belt drives and V-belts. R. & J. Dick Co., Inc., Passaic, N. J.
DICKVALVES—Balata pump valves. R. & J. Dick Co., Inc., Passaic, N. J.
DIESEL MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
DIMO-GRIT — Grinding wheels. Luther Grinder & Tool Co., Milwaukee, Wis.
DIPLOMA—Automatic grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIRUBCO—Belts and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DISC CENTER—Wire sections and wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
DISK—Friction clutch. Link-Belt Co., Chicago, Ill.
DISPLAYRITE—Oil carrier sets. Products Manufacturing Co., Milwaukee, Wis.
DIVIDE — Separators. Direct Separator Co., Inc., Syracuse, N. Y.
DIXIE—Automatic grease cups and lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.
DIXIE — Leather belting. Chas. A. Schieren Co., New York, N. Y.
DIXIE—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
DIXIE—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIXIE — Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
DIXSPAR—Varnishes. Joseph Dixon Crucible Co., Jersey City, N. J.
DO-ALL—Combination portable electric hammer and drill. Wodack Electric Tool Corp., Chicago, Ill.
DOAN—Back fillers. The General Wheelbarrow Co., Cleveland, Ohio.
DOEHLER-BOSTON—Gears. Boston Gear Works, Inc., North Quincy, Mass.
DOGWOOD—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
DOLLAR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
DOLPHIN—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
DOMESTIC MAID—Mops. Sullivan Brush Co., Terre Haute, Ind.
DOMINATOR—Hose, belting and packing. Rhopac Products Corp., Chicago, Ill.
DOMINION—Rod packing. The Darcoid Co., Inc., New York, N. Y.
DOMINO—Crank pin grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DOMINO—Hose and rod packing. The Darcoid Co., Inc., New York, N. Y.
DON'T FEAR—Smoke respirators. Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
DOUBLE CROSS—Transmission belting. The Republic Rubber Co., Youngstown, Ohio.
DOUBLE DIAMOND—Hose. New York Belting & Packing Co., Passaic, N. J.
DOUBLE-DUTY—Motors, lathes and drill presses. Delta Manufacturing Co., Milwaukee, Wis.
DOUBLE-DUTY—Sprocket wheels. Link-Belt Co., Chicago, Ill.
DOUBLE GRIP — Belt dressing and cement. Jerry Bros. Belting Co., Richmond, Va.
DOUBLE GRIP—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
DOUBLE HEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
DOUBLE JAW—Chucks and attachments. Procunier Safety Chuck Co., Chicago, Ill.
DOUBLE NEEDLE — Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
DOUBLECUT—Lintersaw gummer files. The A. A. Wood & Sons Co., Atlanta, Ga.
DOUBLEFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DRAGON—Belting and hose. New York Belting & Packing Co., Passaic, N. J.
DRAGON—Rubber and friction tapes. The Okonite Co., Passaic, N. J.
DRAIN-DRI—Pumps. Yeomans Brothers Co., Chicago, Ill.
DRAINATOR—Steam traps. The Coe Manufacturing Co., Painesville, Ohio.
DRAWSOL—Deep drawing compound. D. A. Stuart Oil Co., Chicago, Ill.
DREADNAUGHT—Anti-skid chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
DREADNAUGHT—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DREADNAUGHT—Blow torches and furnaces. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
DREADNAUGHT — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
DREDNAUT—Goggles and lenses. The Safety Equipment Service Co., Cleveland, Ohio.
DREDNAUT—Wire rope, clips and sockets. The Upson-Walton Co., Cleveland, Ohio.
DREW—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
DRILL-INDEX—Case for drills. Huot Mfg. Co., St. Paul, Minn.
DRIVER—Saws, lathes, grinding, buffing, drilling, woodworking and flexible shaft machines, etc. Walker-Turner Co., Inc., Plainfield, N. J.
DRONANCE—Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
DRY-PAC — Insulation for underground steam lines. Ric-Wil Co., Cleveland, O.
DRYVINS—Hammer drive anchors. Star Expansion Bolt Co., New York, N. Y.
DU-MORE—Files and rasps. Carson-Newton Co., Newark, N. J.
DU-UNIT BUILT—Pressure pumps. Novo Engine Co., Lansing, Mich.
DUCHESS—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUCT-TITE—Asphalt cement. Presstite Engineering Co., St. Louis, Mo.
DUFACE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
DUKE—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUKE—Lubricators. Essex Brass Corp., Detroit, Mich.
DUNDEE—C. R. L. Mill hose and sheet packings. New York Belting & Packing Co., Passaic, N. J.
DUNN—Trench braces. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
DUO-HEX-BOX—Box wrenches. J. H. Williams & Co., New York, N. Y.
DUO-TAN — Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
DUO-WEAR—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
DUOMATIC—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.
DUPLEX — Bench and floor grinders. Wallis Sales Corp., New York, N. Y.
DUPLEX—Boiler water feeders. Nason Manufacturing Co., New York, N. Y.
DUPLEX—Detachable bits and alloy forging steel. Crucible Steel Co. of America, New York, N. Y.
DUPLEX—Feed and overflow valve for oil burners. Efficiency Engineering Co., Boston, Mass.
DUPLEX—Ginsaw files and gumming machines, files and ginsaw gummers. The A. A. Wood & Sons Co., Atlanta, Ga.
DUPLEX—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
DUPLEX—Lubricating oils. Enterprise Oil Co., Inc., Buffalo, N. Y.
DUPLEX—Pop valves. The Lunkenheimer Co., Cincinnati, Ohio.
DUPLEX AKRON — Copper gaskets. Akron Metallic Gasket Co., Akron, Ohio.
DUPLEX HYPOID—Gear compound. Enterprise Oil Co., Inc., Buffalo, N. Y.
DUPLEX UPRIGHT — Vertical power pump. Dean Brothers Co., Indianapolis, Ind.
DUR LOX—Wire cloth. The W. S. Taylor Co., Cleveland, Ohio.
DURA-BILT — Wire wheel and Tampico wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DURA-STIX—Firebrick cement. Keystone Refractories Co., New York, N. Y.
DURABESTOS — Brake linings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DURABLE—Duplex steam pumps. Dean Brothers Co., Indianapolis, Ind.
DURACO — Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DURAFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DURANT—Insulated underground pipe. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
DUREX—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
DURCO—Paints, varnish and turpentine. Duryea Manufacturing Co., New York.
DURIFLEX — Boiler front cement and wall covering. The Wills Products Co., New York, N. Y.
DURITE—Sandpaper, cloth and combination. Behr-Manning Corp., Troy, N. Y.
DURO—Air hose couplings. Kelly Machinery Co., Chicago, Ill.
DURO—Blow-off valves. The Lunkenheimer Co., Cincinnati, Ohio.
DURO — Packings and gaskets. Johns-Manville, New York, N. Y.
DURO BRACE TEXSTEEL — Sheaves. Allis-Chalmers Manufacturing Co., West Allis, Wis.
DURO-FERRIC-KOTE — Paint. Otley Paint Mfg. Co., Chicago, Ill.
DUROIL—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
DUROIL—Motor oil. The Franklin Oil & Gas Co., Bedford, Ohio.
DUROMITE—Bronze alloy for valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
DUROTRED—Matting. The B. F. Goodrich Co., Cleveland, Ohio.
DURUNDUM—Sandpaper. Behr-Manning Corp., Troy, N. Y.
DUSTITE—Gates. R. H. Beaumont Co., Philadelphia, Pa.
DUTCH BOY—White and red lead, linseed oil, babbitt, solder and lead pipe. National Lead Co., New York, N. Y.
DUXBAK—Leather belting and packings and belt cement. Chas. A. Schieren Co., New York, N. Y.
DUXBAK PLANER—Leather planer belting. Chas. A. Schieren Co., New York.
DWARF—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DYNAMITE—Armored rubber steam hose. Mulconroy Co., Inc., Philadelphia, Pa.
DYNAMO—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
DYNAMO—Belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

E

EWC—Trailers. Electric Wheel Co., Quincy, Ill.
E-Z—Bolt anchors. The Kempton Manufacturing Corp., New York, N. Y.
E-Z—Welding compound. Anti-Borax Compound Co., Fort Wayne, Ind.
E.Z.—Wire strippers. Ideal Commutator Dresser Co., Sycamore, Ill.
E. Z. GRIP—Brake lining. Burrell Belting Co., Chicago, Ill.
EAGLE—Files and rasps. Nicholson File Co., Providence, R. I.
EAGLE—Leather belting. Chas. A. Schieren Co., New York, N. Y.
EAGLE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
EAGLE—Twisted jute packing. American Manufacturing Co., Brooklyn, N. Y.
EAGLE ACE—Hose. New York Belting & Packing Co., Passaic, N. J.
EARLE—Cut gears. The Earle Gear & Machine Co., Philadelphia, Pa.
EASE ON—Stick belt dressing. The American Belting Companies, Baltimore, Md.
EASTON—Solid woven cotton belt. Victor-Balata & Textile Belting Co., New York.
EASY—Car movers. The Stafford Co., Chicago, Ill.
EASY FLOW—Brazing alloy. Handy & Harman, New York, N. Y.
EBONITE—Brake lining. L. J. Miley Co., Inc., Chicago, Ill.
EBONY—Transmission and conveyor belting. Burrell Belting Co., Chicago, Ill.
ECLIPSE—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ECLIPSE—Machinists' vises. The Charles Parker Co., Meriden, Conn.
ECLIPSE—Smoke and combustion indicators. T. W. McNeill Engineering Equipment Co., Chicago, Ill.
ECLIPSE CORN KING — Yard hydrants. John C. Kupferle Foundry Co., St. Louis.
ECLIPSE UNDERWRITERS — Fire hydrants. John C. Kupferle Foundry Co., St. Louis, Mo.
ECLO—Hand leathers. The Eagle Counter & Leather Co., Cincinnati, Ohio.
ECO—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ECOLITE—Portable electric hand lanterns. Economy Electric Lantern Co., Inc., Chicago, Ill.
ECONOME—Steam hose couplings. Kelly Machinery Co., Chicago, Ill.
ECONOMIC — Boilers. Erie City Iron Works, Erie, Pa.
ECONOMY—Belt dressing. Baltimore Belting Co., Baltimore, Md.
ECONOMY—Cutting and grinding compounds. The White & Bagley Co., Worcester, Mass.
ECONOMY—Faucets (hot and cold water mixing). Morse Grate Bar Co., Inc., Providence, R. I.
ECONOMY — Grease cups. American Injector Co., Detroit, Mich.
ECONOMY—Hack saw machines. W. Robertson Machine & Foundry Co., Buffalo.
ECONOMY—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ECONOMY—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
ECONOMY HYDRAULIC—Damper regulators. L. G. Doolittle, Binghamton, N. Y.
ECONOMY STRIP — Strip copper. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.

EDGE 500—Asbestos sheet packing. The Darcoid Co., Inc., New York, N. Y.
EDGECUT—Lintersaw gummer files. The A. A. Wood & Sons Co., Atlanta, Ga.
EDISON — Electric mine safety lamps. Mine Safety Appliances Co., Pittsburgh.
EDMANCO—Roofing and sheet steel products. The Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
EFFICIENCY — Cotters and flat spring keys. The Lamson & Sessions Co., Cleveland, Ohio.
EGYPTIAN—Flax packing. A. W. Chesterton Co., Boston, Mass.
1846 PARA — Transmission belting and hose. New York Belting & Packing Co., Passaic, N. J.
EISEN-GLANZ — Hot surface paint. Ensign Products Co., Cleveland, Ohio.
EL CAPITAN — Sheet packing. Rhopac Products Corp., Chicago, Ill.
EL TORO—Leather belt dressing. Baldwin Belting & Leather Co., Inc., New York, N. Y.
ELASTIC STANDARD—Mill white paint. H. Rinald Co., Philadelphia, Pa.
ELASTIGUM—Roofing cement. The Barrett Co., New York, N. Y.
ELASTITE — Asphalt specialties. The Philip Carey Co., Lockland, Ohio.
ELAXTIC—Rubber belt splicing cement. Norton Belting Co., Wellesley Hills, Mass.
ELBON—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELECTRAKEEN—Lawn mower sharpener. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ELECTRA-WELD—Circular wire brushes. The Herold Bros. Co., Cleveland, Ohio.
ELECTRIC—Steel wheels. Electric Wheel Co., Quincy, Ill.
ELECTRIC ABRASIVE — Metal cutting abrasive cloth. H. H. Barton & Son Co., Troy, N. Y.
ELECTRIC BRONZE — Bronze bars and pipe fittings M. L. Oberdorfer Brass Co., Syracuse, N. Y.
ELECTRIC WATER BOY—Electric automatic cellar drainer. Weil Pump Co., Chicago, Ill.
ELECTRIMMER—Hedge trimmer. Skilsaw, Inc., Chicago, Ill.
ELECTRITUBE—Light wall steel conduit. Clayton Mark & Co., Chicago, Ill.
ELECTROGUN—Power lubrication equipment. Alemite Corp., Chicago, Ill.
ELECTRO-LIFT—Electric hoists. Products Manufacturing Co., Milwaukee, Wis.
ELECTROLON—Grinding wheels, rubbing bricks, etc. The Abrasive Co., Division of Simonds Saw and Steel Co., Philadelphia, Pa.
ELECTROMIL—Milling machine. Sundstrand Machine Tool Co., Rockford, Ill.
ELECTROMODE—Unit electric heaters. Electric Air Heater Div., American Foundry Equipment Co., Mishawaka, Ind.
ELECTROPUMPS — Circulating pumps. Lawrence Pump & Engine Co., Lawrence, Mass.
ELECTRUNITE—Mechanical tubing, boiler tubes, condenser tubes, heat exchanger tubes, evaporator tubes, air preheater tubes, hot water heater tubes, superheater tubes, air conditioning tubing, refrigeration tubing, locomotive flues, stainless tubing. Steel & Tubes, Inc., Cleveland, Ohio.
ELEMENT ROPE — Balata "V" belting. R. & J. Dick Co., Inc., Passaic, N. J.
ELEPHANT—Phosphor bronze products. The Phosphor-Bronze Co., Philadelphia, Pa.
ELEVAY — Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Shut-off nozzles, hose racks and reels. Elkhart Brass Mfg. Co., Elkhart, Ind.
ELM CITY—Metal punches. The Wm. Schollhorn Co., New Haven, Conn.
ELWEL—Coil, machine and truck chain. American Chain Co., Inc., Bridgeport, Conn.
EMBLEM—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
EMERALD CORD—V belts and air hose. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
EMERGENCY — Steam traps. Wright-Austin Co., Detroit, Mich.
EMERGENCY—Lubricators. American Injector Co., Detroit, Mich.
EMERGENCY—Pipe clamps. M. B. Skinner Co., South Bend, Ind.
EMPECO—Paint. Maire Paint & Mfg. Co., Minneapolis, Minn.
EMPIRE—Bolts, nuts, rivets and washers. Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
EMPIRE — Double-acting force pumps. Goulds Pumps, Seneca Falls, N. Y.
EMPIRE — Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
EMPIRE-MOHAWK—Flint paper. Behr-Manning Corporation, Troy, N. Y.
EMRICK (ETTCO-EMRICK)—Tapping attachments and devices, multiple spindle drill and tapping heads. Ettco Tool Co., Inc., Brooklyn, N. Y.
ENAMELKOTE—Rigid steel conduit pipe. Clayton Mark & Co., Chicago, Ill.
ENDUCO — High temperature pipe and boiler covering. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
ENDURANA—Belting, hose and packings. Hamilton Rubber Mfg. Co., Trenton, N. J.
ENDURANCE — Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ENDURO—Stainless steel. Alloy Steel Div., Republic Steel Corp., Massillon, O.
ENGBERG — Steam engines and engine generator sets. Troy Engine & Machine Co., Troy, Pa.
ENGINEERS' FAVORITE—Flue scraper. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
EQUATOR—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
EQUIPOISE—Rotary shaft valves, etc. H. Belfield Co., Philadelphia, Pa.
EQUIPTO—Steel factory equipment. Aurora Equipment Co., Aurora, Ill.
EQUOTAN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
ERBCO—Grease wheel lubricant and "Drifinish." E. Reed Burns Mfg. Corp., Brooklyn, N. Y.
ERIE — Drilling and tapping machines. Hays Manufacturing Co., Erie, Pa.
ERIE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ERWOOD (KENNEDY-ERWOOD) — Swing gate valves. The Kennedy Valve Mfg. Co., Elmira, N. Y.
ESICO—Electric soldering coppers and irons, and soldering pots. Electric Soldering Iron Co., Inc., New York, N. Y.
ESSENTIALITE—Welding glass. Chicago Eye Shield Co., Chicago, Ill.
ESSTEE—Paint. American Asphalt Paint Co., Chicago, Ill.
ETERNIUM—Acid and alkali resisting paint. The Barrett Co., New York, N. Y.
ETTER—Hand and wind mill pumps. Domestic Engine & Pump Co., Shippensburg, Pa.
EUREKA—Gauge glasses. Semon Bache & Co., New York, N. Y.
EUREKA—Hose couplings for rock drills. The Rauch Manufacturing Co., Galena, Kan.
EUREKA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EUREKA—Leather belting. Page Belting Co., Concord, N. H.
EUREKA—Paints, cements, etc. Otley Paint Mfg. Co., Chicago, Ill.
EUREKA—Post hole diggers. Iwan Brothers, South Bend, Ind.
EUREKA — Rope and twine. Columbian Rope Co., Auburn, N. Y.
EVALLOY—Stainless steel. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALNITE—Nitralloy. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALTHRUST—Ball bearing yoke. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVANACTION—Diaphragm valves. Taylor Instrument Companies, Rochester, N. Y.
EVANSTON—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EVEN TRIM — Special machine butcher block and casting brushes and wire brooms. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
EVERDUR—Sheets, wire, tubes, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
EVEREDY — Electric hoists. Reading Chain & Block Corp., Reading, Pa.
EVERGRIP—Hose clamps. Everhot Mfg. Co., Maywood, Ill.
EVERJET—Paint for iron work, boilers, etc. The Barrett Co., New York, N. Y.
EVERLAST—Mops. Sullivan Brush Co., Terre Haute, Ind.
EVERLASTIC—Roll roofing. The Barrett Co., New York, N. Y.
EVERLASTING—Brazed steel oilers. P. Wall Mfg. Supply Co., Pittsburgh.
EVERLOCK — Gasoline hose couplings. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
EVERSTICK—Patent solder. Federated Metals Corp., New York, N. Y.
EVERWELD — Metal bar. Everhot Mfg. Co., Maywood, Ill.
EVRINEDE — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
EVRTYTE — Globe valves. The Strong, Carlisle & Hammond Co., Cleveland, O.
EWART—Link belt. Link-Belt Co., Chicago, Ill.
EXCEL—Electric drill and wire connectors. Ideal Commutator Dresser Co., Sycamore, Ill.
EXCEL—Welding torches and gas regulators. Superior Oxy-Acetylene Co., St. Louis, Mo.
EXCEL-ALL — Canvas polishing wheels. Divine Brothers Co., Utica, N. Y.
EXCELLAL BULL DOG — Tool grinders and electric bench grinder. Western Hdwe. Mfg. Co., Milwaukee, Wis.
EXCELSALL—Tool handles. O. P. Link Handle Co., Salem, Ind.
EXCELPAX — Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
EXCELSIOR—Gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
EXCELSIOR — Grinders, drills, presses, etc. Royersford Foundry and Machine Co., Royersford, Pa.
EXCELSIOR — Rotary pumps. Foster Pump Works, Brooklyn, N. Y.
EXCITER—Round leather belting. McCauley Belting Co., Chicago, Ill.
EXHAUSTEAM—Purifier. Moorhead Mfg. Co., Detroit, Mich.
EXPLOSO—Lubricators. American Injector Co., Detroit, Mich.
EXTRA CHOICE—Leather belting, belt cement, lubricant, etc. O'Meara Belting Co., Omaha, Neb.
EXTRA SHORT LAP—Leather belting. Graton & Knight Co., Worcester, Mass.
EXTRUDO—Wire. Youngstown Sheet and Tube Co., Youngstown, Ohio.
EZY-OUT—Screw extractors. The Cleveland Twist Drill Co., Cleveland, Ohio.

F

F.B.C.—Pump valve seat refacing tools. Furness Bros. Co., Chicago, Ill.
F. & D.—Gauge glasses. Friedrich & Dimmock, Millville, N. J.
F AND H—Pipe bands. Sacramento Pipe Works, Sacramento, Calif.
FABRI-KROME — Leather faced cotton belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
FALCON—Chain tongs. J. H. Williams & Co., New York, N. Y.
FALCON—Tool handles. American Handle Co., Jonesboro, Ark.
FAMOUS—Belt dressing. McCauley Belting Co., Chicago, Ill.
FAST—Flexible couplings. The Bartlett Hayward Co., Baltimore, Md.
FAULTLESS—Conveyor belt. Link-Belt Co., Chicago, Ill.
FAULTLESS—Hose. Home Rubber Co., Trenton, N. J.
FAV-O-RITE—Valve lifters. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
FAVORITE—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
FAVORITE—Reversible ratchet wrench. Greene, Tweed & Co., New York, N. Y.
FEATHER VALVE—Compressor valves. Worthington Pump and Machinery Corp., Harrison, N. J.
FEATHERWEIGHT—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
FEATHERWEIGHT—Pipe and boiler insulation. Keasbey & Mattison Co., Ambler, Pa.
FEDELCODE — Electric sirens. Federal Electric Co., Chicago, Ill.
FEDERALITE—Metallic packing. Federal Metallic Packing Co., Wakefield, Mass.
FEDERAL WARRANTED—Gauges. The Mercoid Corp., Chicago, Ill.
FEDMET—Solder. Federated Metals Corp., New York, N. Y.
FEL-PRO—Gaskets, washers and packing. Felt Products Mfg. Co., Chicago, Ill.
FEMPAC—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
FERRENEWO IBBM—Globe, angle, cross and check valves. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO CASE—Case hardening compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
FERROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.
FERROPAC—Victor Mfg. & Gasket Co., Chicago, Ill.
FIBRELASTIC—Cork gaskets. Armstrong Cork Products Co., Lancaster, Pa.
FIBREKOTE—Plastic weather proofing. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
FIBREX—Non-metallic tree wire. Simplex Wire & Cable Co., Boston, Mass.
FIBROFELT—Insulating board. Union Fibre Sales Co., Winona, Minn.
FIBRO-FORGED—Hollow screws, set and cap. Holo Krome Screw Corp., Bristol, Conn.
FIBRO-SUPERHEAT-SHEET—Packings. New York Belting & Packing Co., Passaic, N. J.

UMI

FIDELITY—Cotton waste, wiping rags and journal box packing. The J. Milton Hagy Waste Works, Philadelphia, Pa.
FIDELITY—Raw edge transmission belting. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FIELD—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
FIELDCO — Washers, gaskets, packing, etc. R. B. Field & Co., Worcester, Mass.
FILMON—Boiler and anti-rust treatment. The Hollow Center Packing Co., Cleveland, Ohio.
FILQUIK—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
FIRE-GUN—Fire extinguishers. American-LaFrance & Foamite Corp., Elmira, N. Y.
FIREBOND—High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
FIRECRETE—Refractory cements. Johns-Manville, New York, N. Y.
FIREITE—Refractory cements. Johns-Manville, New York, N. Y.
FIRELESS HYPRESSURE JENNY—Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
FIRMA—High pressure gauge glasses. Advance Packing & Supply Co., Chicago.
FIRMTREAD—Steel floor plates. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
FIRMUS—Tool handles. O. P. Link Handle Co., Salem, Ind.
FIRO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
FIRST AID—Fire extinguisher. W. D. Allen Mfg. Co., Chicago, Ill.
FISCO—Corrosive resisting valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
FISH & HOOK BRAND—Saws. Sandvik Saw & Tool Corp., Minneapolis, Minn.
FISHERMAN—Gasoline engines. Loane Engineering Co., Baltimore, Md.
FIX KWIK—Commutator compounds and lubricants. Technical Products Co., Pittsburgh, Pa.
FLANGETITE—Asbestos sheet packing. The Darcoid Co., Inc., New York, N. Y.
FLARING—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill
FLASTIC—Grinding wheels. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, O.
FLAT UNICOAT — Mill white paint. H. Rinald Co., Philadelphia, Pa.
FLATLINK—Weldless chain. The McKay Co., Pittsburgh, Pa.
FLATPLUG—Valves. Everlasting Valve Co., Jersey City, N. J.
FLATROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
FLAWLESS BRAND SEAMLESS—Brass and copper tubing and ferrules. The National Copper & Smelting Co., Cleveland, Ohio.
FLEETWELD — Welding electrode. The Lincoln Electric Co., Cleveland, Ohio.
FLETCHER—Gauge glass cutters. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
FLEXCO & FLEXCO LOK—Electric lamp guards. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO D. W.—Deep well belt clamps. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO H D—Steel belt fasteners. Flexible Steel Lacing Co., Chicago, Ill.
FLEX-ALIGN—Flexible couplings. Baldor Electric Co., St. Louis, Mo.
FLEXEAL—Woven-wire-inserted asbestos gasket with corrugated metal core. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
FLEXI UNIT—Centrifugal pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
FLEXIBLAC—Protective paint. The Wilbur & Williams Co., Boston, Mass.
FLEXICORD—Endless belts and paper mill hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FLEXITE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
FLEXITITE—Gate valves. Ohio Brass Co., Mansfield, Ohio.
FLEXLOCK—Pipe joints. The B. F. Goodrich Co., Cleveland, Ohio.
FLEXMORE—Balata sieve lining and balata belting. Victor Balata Textile & Belting Co., New York, N. Y.
FLEXO-SPOUT—Gasoline and oil filling cans. Eagle Mfg. Co., Wellsburg, W. Va.
FLEXOID—Flexible couplings. The Smith Power Transmission Co., Cleveland, O.
FLEXOTYPE—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
FLEXPAN—Flexible joint gas pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
FLEXPIN—Couplings. Smith & Serrell, Newark, N. J.
FLEXSEAL—Hose joints. The B. F. Goodrich Co., Akron, Ohio.
FLEXSET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
FLEXSTEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
FLEXTIC—Leather belt dressing. Norton Belting Co., Wellesley Hills, Mass.
FLINT EDGE—Axes, hammers, hatchets, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
FLINT-IRON—Ash conveyor pipe. The Frederick Iron & Steel Co., Frederick, Md.
FLINT-RIM—Sprocket wheels. Link-Belt Co., Chicago, Ill.
FLOWER—Check and balanced valves. Scott Valve Manufacturing Co., Detroit, Mich.
FLYFOOT BELT STICK—Belt dressing. Chas. A. Schieren Co., New York, N. Y.
FOAMITE—Fire extinguishers, foam generators and systems, etc. American-LaFrance and Foamite Corp., Elmira, N. Y.
FONDCOAT — Waterproofing compounds. Vita-Var Corp., Newark, N. J.
FOOTLIFT—Lift trucks. Lewis-Shepard Co., Boston, Mass.
FORBES—Pipe, bolt and nipple threading machines, etc. The Curtis & Curtis Co., Bridgeport, Conn.
FORCE-AIR—Blower or exhaust fans. Victor Electric Products, Inc., Cincinnati, Ohio.
FORCEWELD—Casters. The Service Caster & Truck Co., Albion, Mich.
FORD—Ship augers. Millers Falls Co., Greenfield, Mass.
FORESTER—Brush cutting and pruning tool. H. K. Porter, Inc., Everett, Mass.
FORGSTEEL—Fittings and valves. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
FORMPROOF—Metal, money bag and milk can seals. Chicago Expansion Bolt Co., Chicago, Ill.
FORTUNE—Transmission belting. The Mechanical Rubber Co., Passaic, N. J.
FORZOIL—Pump type hand oilers. Anthes Force Oiler Co., Fort Madison, Iowa.
FRANCKE—Bushed pin couplings. John Waldron Corp., New Brunswick, N. J.
FRANKO — Solid woven belting. The Franklin Cotton Mill Co., Cincinnati, O.
FREFLO—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
FRESNO—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
FRETZ—Pipe nipples. Thos. Devlin Manufacturing Co., Burlington, N. J.
FRONT END—Hot surface paint. The Barrett Co., New York, N. Y.
FROTHEX FOAM — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
FULTON—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
FYER-WAY—Fire doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
FYRE-FREEZE—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
FYRE-MORTAR — Refractory cement. Quigley Co., Inc., New York, N. Y.
FYROUT — Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
FYRPRUF—Fireproof clothing, leggings, etc. Gross Rubber Co., Sharon, Pa.

G

"G"—Fittings, pipe hangers, valves. Grinnell Co., Inc., Providence, R. I.
"G" (in circle)—Hack saw blades. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
G.I.A.—Abrasive discs. Gardner Machine Co., Beloit, Wis.
G. J. BOSS—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
G.L.—Oilers. Gustave Lidseen, Inc., Chicago, Ill.
G.P.&F.—Sheet metal products. Geuder, Paeschke & Frey Co., Milwaukee, Wis.
GP/777—Hack saw blades. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
G. R. CO.—Fire brick, high temperature cements and castable refractories. General Refractories Co., Philadelphia, Pa.
G.S.M.—Semi-metallic hose. Goodall Semi-Metal Hose & Mfg. Co., Philadelphia, Pa.
GA-SMOKE—Burners. Bate Boiler Efficiency Co., Conshohocken, Pa.
GALVACAP—Industrial brooms. Deshler Broom Factory, Deshler, Neb.
GALVAKOKE—Rigid steel conduit pipe. Clayton Mark & Co., Chicago, Ill.
GALVANIDE ZINC—Paint. A. C. Horn Co., Long Island City, N. Y.
GALVANITE—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GALVANNEAL — Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
GALVANUM—Paint for galvanized iron. Vita-Var Corp., Newark, N. J.
GAM-TAN BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
GANISAND—Granular refractory. Quigley Co., Inc., New York, N. Y.
GARCO—Packing, wick, rope and gasket tape. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARCOBESTOS—Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARDEN CITY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
GARDEN CLUB—Garden hose. The B. F. Goodrich Co., Akron, Ohio.
GARFIELD—Injectors and ejectors. Ohio Injector Co., Wadsworth, Ohio.
GARNET—Rubber air hose. Mulconroy Co., Inc., Philadelphia, Pa.
GAS ENGINE—Grease cups. American Injector Co., Detroit, Mich.
GASOGUN—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
GASOILA—Varnish and cement. The Federal Process Co., Cleveland, Ohio.
GASPARKS—Ball and socket joints. Morganmade, Inc., Keene, N. H.
GAYLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
GEARKOTE—Gear lubricant. The Metalene Chemical Co., Cleveland, Ohio.
GEE FLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
GEM—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
GEM—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GEM—Tapes. Eugene Dietzgen Co., Chicago, Ill.
GEM—Tool handles. Hartwell Brothers, Memphis, Tenn.
GENASCO—Roofing, shingles, sidings and felts. The Barber Asphalt Co., Philadelphia, Pa.
GENERAL — Adjustable hose clamps. American Stamping Co., Battle Creek, Mich.
GENUINE DETROIT—Lubricators, radiator valves and heating accessories. Detroit Lubricator Co., Detroit, Mich.
GENUINE KARNS BOW SPRING—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
GENUINE SOVEREIGN BABBITT—Babbitt metal. Glacier Metal Co., Richmond, Va.
GIANT—Belt lacings. Chas. A. Schieren Co., New York, N. Y.
GIANT—Blower and suction devices. Ideal Commutator Dresser Co., Sycamore, Ill.
GIANT—Keyseater and nibbler. Mitts and Merrill, Saginaw, Mich.
GIANT—Manila rope. The Upson-Walton Co., Cleveland, Ohio.
GIANT—Ratchet socket wrenches. Keystone Mfg. Co., Buffalo, N. Y.
GIANT—Tank pumps. The Deming Co., Salem, Ohio.
GIANT METAL—Sash chain. The Smith & Egge Division of The Turner & Seymour Mfg. Co., Torrington, Conn.
GIBBS—Automatic grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GIBBS—Post hole diggers. Iwan Brothers, South Bend, Ind.
GIBRALTAR—Canvas stitched belting. Johnson Belting Co., New York, N. Y.
GILBERT—Gauge glass gaskets. Morse Grate Bar Co., Inc., Providence, R. I.
GILMORE—Boiler tube cleaners. D. J. Crowell & F. G. Crowell, Buffalo, N. Y.
GILSEK—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
GILT EDGE—Flat leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GILT EDGE—Round leather belting. I. B. Williams & Sons, Dover, N. H.
GILT EDGE SPINDLE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GLASS VALVE—Brass and brass lined cylinders. The F. E. Myers & Bro. Co., Ashland, Ohio.
GLASWICK—Oil cup. The Lunkenheimer Co., Cincinnati, Ohio.
GLAZO—Glazing and calking cement. Ensign Products Co., Cleveland, Ohio.
GLOBE—Cornered steel grit. The Globe Steel Abrasive Co., Mansfield, Ohio.
GLUTE—Flake and liquid glue. Technical Products Co., Pittsburgh, Pa.
GLYCO—Babbitt metal. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
GOETEERIT—Compressed asbestos sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
GOLD BOND—Babbitt. Gardiner Metal Co., Chicago, Ill.
GOLD BOND—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
GOLD BOND—Core oils. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
GOLD BOND—Putty. Baker Paint & Varnish Co., Jersey City, N. J.
GOLD EDGE—Brake lining. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
GOLD MEDAL—Files. Henry Disston & Sons, Inc., Philadelphia, Pa.
GOLD MEDAL—Ladders and scaffolding. The Patent Scaffolding Co., Chicago, Ill.
GOLD SEAL—Pump valves and valve discs. Rhopac Products Corp., Chicago, Ill.

GOLD STRAND—Screen cloth. Wickwire Spencer Steel Co., New York, N. Y.
GOLD STRIPE—Paint, varnish and calcimine, etc., brushes, etc., Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
GOLD TIP—Glass cutters. The Fletcher-Terry Co., Forestville, Conn.
GOLDEN GATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDEN OAK—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
GOLDEN ROD—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
GOLDEN RULE—Grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDEN STATE—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
GOLDEN STATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDSMITH—Hose rack. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDSMITH — Throttle valves. Scott Valve Manufacturing Co., Detroit, Mich.
GOODENUF—Tool handles. O. P. Link Co., Salem, Ind.
GOPHER—Floor trucks. Nutting Truck Co., Faribault, Minn.
GOTHIC—Asbestos Cement Shingles. The Ruberoid Co., New York, N. Y.
GOVERNMENT GENUINE—Babbitt. United American Metal Corp., Brooklyn, N. Y.
GRADA—Metal tile and porcelain cleanser. The Grady Mfg. Co., Long Island City, N. Y.
GRAINOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GRAINVEY—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRAKNIGHT DYNAMO—Leather belting. Graton & Knight Co., Worcester, Mass.
GRANITE-OAK—Leather belting. Geo. Rahmann & Co., New York, N. Y.
GRAPH-AIR—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
GRAPHON—Rod packing. New York Belting & Packing Co., Passaic, N. J.
GRAPHOXIDE IRON CLAD—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GRAY LINE (THE)—Woodworking machinery. Delta Mfg. Co., Milwaukee, Wis.
GREASEAL — Felt protected bearings. Norma-Hoffmann Bearings Corp., Stamford, Conn.
GREAT SEAL—Transmission and conveyor belting. New York Belting & Packing Co., Passaic, N. J.
GREAT WESTERN — Files and rasps. Nicholson File Co., Providence, R. I.
GREEN KNIGHT—Water systems. Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
GREEN LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
GREEN LINE—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
GREEN LINE—Tools. The Kilborn & Bishop Co., New Haven, Conn.
GREEN RIVER—Straightening presses, shoeing vises, bolt headers, mandrels, etc. B. B. Noyes Co., Greenfield, Mass.
GREENERD—Arbor presses. Edwin E. Bartlet Co., Nashua, N. H.
GREENITE—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
GREFCO — High temperature cements. General Refractories Co., Philadelphia, Pa.
GRENADIER—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
GREY-ROCK—Asbestos brake linings and clutch facings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
GREYHOUND—Hand saws. The Ohlen-Bishop Co., Columbus, Ohio.
GREYHOUND—Padlocks. Master Lock Co., Milwaukee, Wis.
GRIDISC—Disc grinding wheels. Peninsular Grinding Wheel Co., Detroit, Mich.
GRIMM'S BLOWER—Tube cleaners. William H. Murray, Richmond Hill, New York, N. Y.
GRIP-O-TAN — Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GRIP-TITE—Belt and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRIP-TITE—Hose clamps. Clamps, Inc., Brooklyn, N. Y.
GRIPBELTS—V-Belts. Ohio Valley Pulley Works, Inc., Maysville, Ky.
GRIPON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
GRIPSTICK—Leather belting. Chicago Belting Co., Chicago, Ill.
GRIPTITE—"V" belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRIPWELL DUKTEX—Pulley surface coverings. Gripwell Mfg. Co., New York.
GRIZZLY—Portable loaders. Link-Belt Co., Chicago, Ill.
GROG-O-MIX—Crushed fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
GROUND FROM THE SOLID — Taps, thread gauges and roll threading dies. John Bath & Co., Inc., Worcester, Mass.
GROOM—Leather belting. Foss & Bump, Inc., Springfield, Mass.
GRUNDY — Flexible couplings. Charles Bond Co., Philadelphia, Pa.
GUARANTEED — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
GUARD—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GUARDENE—Fire extinguishers and fire engines. Pyrene Manufacturing Co., Newark, N. J.
GUARDIAN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GUARDIAN—Watchman's single station register. Detex Watchclock Corp., Chicago, Ill.
GULF—Belt, hose, packing and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GULMITE—Cap, set, wood and machine screws. Rockford Screw Products Co., Rockford, Ill.
GUN METAL—Belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
GUYEYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.

H

H&A—Bench woodworking machines. Heston & Anderson, Fairfield, Iowa.
HB—Ball bearings. S.K.F. Industries, Inc., Philadelphia, Pa.
HB—Circular tampico brushes. The Herold Bros. Co., Cleveland, Ohio.
H. B.—Dredge chain. American Chain Co., Inc., Bridgeport, Conn.
H. F. M.—Casters. The Hamilton Foundry & Machine Co., Hamilton, Ohio.
H-H INHALATORS—Resuscitation equipment. Mine Safety Appliances Co., Pittsburgh, Pa.
HL—Pumps. Lawrence Pump & Engine Co., Lawrence, Mass.
HKP—Pruning and bush cutting tools. H. K. Porter, Inc., Everett, Mass.
HWR—Basic refractories. Harbison Walker Refractories Co., Pittsburgh, Pa.
HP—Pulleys, hangers, etc. Boston Gear Works, Inc., North Quincy, Mass.
H-P-M — Presses, pumps, accumulators, valves and fittings. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
HADCO—Bin labels, medal card holders, etc. Haddon Bin Label Co., Haddon Heights, N. J.
HADES — Belting. Gandy Belting Co., Grand Rapids, Mich.
HAGER—Check valves. The Williams Gauge Co., N. S., Pittsburgh, Pa.
HALLOWELL—Benches, trucks and platforms. Standard Pressed Steel Co., Jenkintown, Pa.
HAMILTON—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
HAMMER—Clamps and oilers. Malleable Iron Fittings Co., Branford, Conn.
HAMMON—Pipe couplers. Hope Engineering Co., Mt. Vernon, Ohio.
HAMMOND—Drilling, tapping and polishing machines. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
HAMPDEN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
HAMRTWIST—Masonry drill points. Star Expansion Bolt Co., New York, N. Y.
HAN-DEE—Belt dressing. Duryea Manufacturing Co., Bayonne, N. J.
HANCOCK — Valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
HAND PACER—Bushing tool. The Dallett Co., Philadelphia, Pa.
HAND-EE—Portable electric grinders. M. C. Tool Co., Chicago, Ill.
HANDIE-BARO—Wheelbarrows. Sterling Wheelbarrow Co., Milwaukee, Wis.
HANDMADE — Hammers and hatchets. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
HANDNIB—Combined shear nibbler, rod cutter and inside nibbler. National Machine Tool Co., Racine, Wis.
HANDY—Cleaner brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HANDY—Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
HANDY—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
HANDY—Grinders, grinder-buffers, buffers, and battery charges. Baldor Electric Co., St. Louis, Mo.
HANDY—Lights. National Carbide Sales Corp., New York, N. Y.
HANDY—Pump oilers. Eagle Mfg. Co., Wellsburg, W. Va.
HANDY—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HANDY ANDY—Tool grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
HANDY ANDY—Vise stand. Western Wire Products Co., St. Louis, Mo.
HANDY BOY—Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
HANDY-GRIP—Gasoline and oil filling cans. Eagle Mfg. Co., Wellsburg, W. Va.
HANDY-MAN—Pick-up trucks. Saginaw Stamping & Tool Co., Saginaw, Mich.
HANDY PACKAGE—Lace leather. Graton & Knight Co., Worcester, Mass.
HARBRONZ—Cored and solid bronze bars. Arthur Harris & Co., Chicago, Ill.
HARD BOILED—Safety caps and hats. E. D. Bullard Co., San Francisco, Cal.
HARD SPIRAL—Flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HARDENED METALLIC—Drives, screws. Parker-Kalon Corp., New York, N. Y.
HARDIE—Car washers, coal sprayers, air towers, flood lights and sanding machines. Asch & Co., Inc., New York, N. Y.
HARDWEAR—Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
HARDWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
HARGRAVE—Mechanics' tools. The Cincinnati Tool Co., Cincinnati, Ohio.
HARSPAR — Power plant instruments. Harry S. Parks Co., Philadelphia, Pa.
HARTFORD—Die filing machines. The Robinson Tool Works, Inc., Waterbury, Conn.
HARTFORD—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
HARTZ—Steel tackle and snatch blocks. H. D. Edwards & Co., Detroit, Mich.
HARWACO BOND — High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
HASTY—Soap. Pacific Chemical Co., Los Angeles, Calif.
HAUSFELD — Metal melting furnaces. The Campbell-Hausfeld Co., Harrison, Ohio.
HAVEN'S—Wire grips. M. Klein & Sons, Chicago, Ill.
HAWK—Tool handles. American Handle Co., Jonesboro, Ark.
HAYES RUN—Fire clay brick. General Refractories Co., Philadelphia, Pa.
HAYNES STELLITE — Wear resisting alloys. The Linde Air Products Co., New York, N. Y.
HEALTHGUARD—Masks. Chicago Eye Shield Co., Chicago, Ill.
HEART OF OAK — Leather belting. Charles L. Ireson Co., Philadelphia, Pa.
HEARTH-CRETE — Castable refractory. Quigley Co., Inc., New York, N. Y.
HEATHERBRAND—Low pressure gauge glasses. Advance Packing & Supply Co., Chicago, Ill.
HEAT KILLER—Fans. Coppus Engineering Corp., Worcester, Mass.
HEAT SEAL—Mineral wool insulation. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
HEAVY DUTY—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
HEAVY DUTY — Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
HEAVY DUTY—Reversible Ratchet Wrenches. Lowell Wrench Co., Worcester, Mass.
HEAVY MOTOR—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HELICOID—Screw conveyors. Link-Belt Co., Chicago, Ill.
HELIFLEX — Roller bearings. Roller Bearing Co. of America, Trenton, N. J.
HELIOS — Sheet packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
HELL GATE—Transits. W. & L. E. Gurley, Troy, N. Y.
HELLITE—Refractory cements. Johns-Manville, New York, N. Y.
HEMCO—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HEMEK—Belting. Manheim Mfg. & Belting Co., Manheim, Pa.
HENDERSHOT—Couplings. Sprout, Waldron & Co., Inc., Muncy, Pa.
HERCULES—Air compressor lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
HERCULES — Alloy agricultural discs. Crucible Steel Co. of America, New York.
HERCULES—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HERCULES — Bronze hydraulic valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
HERCULES—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
HERCULES and **HERCULES MAJOR**—Drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES—Foot squaring sheet metal shears. Niagara Machine & Tool Works, Buffalo, N. Y.
HERCULES—Gauge glasses. Semon Bache & Co., New York, N. Y.
HERCULES—Hangers. Sprout, Waldron & Co., Inc., Muncy, Pa.

UMI

HERCULES—Leather aprons. Gross Rubber Co., Sharon, Pa.
HERCULES—Leather belting. Page Belting Co., Concord, N. H.
HERCULES — Portable pneumatic tools and machines. The Buckeye Portable Tool Co., Dayton, Ohio.
HERCULES—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
HERCULES—Twist drills, reamers and interchangeable punches. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES ELECTRIC WELD — Steel loading chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
HERCULES MAJOR—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES (RED STRAND)—Wire rope. A. Leschen & Sons Rope Co., St. Louis.
HERCULES SOLID WELD—Steam shovel chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
HERCULES SPECIAL STEEL — Wire rope. A. Leschen & Sons Rope Co., St. Louis, Mo.
HERKULES — Jewelers' metal cutting band saw blades. Hammel, Riglander & Co., Inc., New York, N. Y.
HERO—Leather belting. W. S. Nott Co., Minneapolis, Minn.
HERO—Rubber hose. Mulconroy Co., Inc., Philadelphia, Pa.
HERON—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
HETMACO—Industrial belting. The Hettrick Mfg. Co., Toledo, O.
HETSON—Canvas goods. W. E. Hettrick & Son, Inc., Toledo, Ohio.
HEVI-DUTY — Semi metallic packing. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
HEWMET—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HEX-TEX — Hexagon two-faced V-belt. Allis-Chalmers Manufacturing Co., West Allis, Wis.
HEX-TOP — Grease cups. Link-Belt Co., Chicago, Ill.
HEXAGON—Post hole diggers. Iwan Brothers, South Bend, Ind.
HI-CARBON—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-DUTY CONNECTIONS — Copper and brass tube couplings and paint spray equipment. Imperial Brass Manufacturing Co., Chicago, Ill.
HI GRADE OAK—Belting, pump packing, discs. The Chicago Rawhide Mfg. Co., Chicago, Ill.
HI-LIFT—Hand regulating valves. H. Belfield Co., Philadelphia, Pa.
HI-LO — Condensation pumps. Yeoman Brothers Co., Chicago, Ill.
HI LOY—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-QUALITY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-TEMPER—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-TEST — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-UP—Electric hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
HICARBO—Coal chutes. H. B. Sackett Screen & Chute Co., Chicago, Ill.
HICKORY — Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
HICKS—Belt hooks. The Washburn Co., Worcester, Mass.
HICYCLE—Portable electric tools. Chicago Pneumatic Tool Co., New York.
HIPLO — Deepwell pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HIGH GRADE—Conveyor belting, hose and friction tape. The Mechanical Rubber Co., Passaic, N. J.
HIGH SERVICE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.
HIGH SPEED—Hand saws. The Ohlen-Bishop Co., Columbus, Ohio.
HIGH SPEED—Shovels. American Manufacturing Co., Chattanooga, Tenn.
HIGHFLEX—Belting. The B. F. Goodrich Co., Akron, Ohio.
HIGHFLEX JUNIOR — Transmission belts. The B. F. Goodrich Co., Akron, O.
HIGHWAY RED—Red lead paint. Vita-Var Corp., Newark, N. J.
HILL—Pumps. Dean-Hill Pump Co., Anderson, Ind.
HILO BUTTERFLY—Gas burners. Bastian-Morley Co., La Porte, Ind.
HINDOSTAN—Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
HIRSUTE—Round leather belting. Johnson Belting Co., New York, N. Y.
HITENSO—Trolley. Anaconda Wire & Cable Co., New York, N. Y.
HIVOL — Direct-acting steam pump. Worthington Pump and Machinery Corp., Harrison, N. J.
HIWAY-B7-5—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
HODELL—Coil and sash chain and tire chains. The Chain Products Co., Cleveland, Ohio.
HOFFMAN ECONOMY—Vacuum and condensation pumps. Economy Pumping Machinery Co., Chicago, Ill.
HOKE—Gauge blocks. Pratt & Whitney Co., Hartford, Conn.
HOLD-HEET—Glue pots, heating elements, pots (electric). Russell Electric Co., Chicago, Ill.
HOLE HOG—Machine tools. Moline Tool Co., Moline, Ill.
HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
HOLLY — Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HOLSCREW—Shaft collars. Bond Foundry and Machine Co., Manheim, Pa.
HOLTITE—Pipe clamps. Yarnall-Waring Co., Philadelphia, Pa.
HOLTITE—Screws, bolts, nuts, etc. Continental Screw Co., New Bedford, Mass.
HOME—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
HOME WORKSHOP—Saws and tools. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
HOMEBESTOS—Packing. Home Rubber Co., Trenton, N. J.
HOMESTEAD—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HOMO—Electric tempering and hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HONOR BRAND — Brushes. Sullivan Brush Co., Terre Haute, Ind.
HONTAS—Screen diaphragms. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
HOOSIER—Mops. Sullivan Brush Co., Terre Haute, Ind.
HORSFIELD—Tap wrenches. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
HORSHOE—Paint, varnish and calcimine, etc., brushes, etc. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
HOUSEHOLD—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HOVALCO—Blow off valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
HOWE BROWN—Carbon tool steels. Crucible Steel Co. of America, New York.
HUB—Gasoline torch. The Lenk Mfg. Co., Newton Lower Falls, Mass.
HUDERKUT — Submerged cut off machines. Andrew C. Campbell Division of American Chain Co., Inc., Bridgeport, Conn.
HUG-IT—Belt dressing. Hinds and Coon Co., Boston, Mass.
HUMMER—Foot power grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
HUMP — Electric hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HUMP—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
HUMPHREY—Hand elevators. The Storm Manufacturing Co., Newark, N. J.
HUNTINGTON (DESMOND-HUNTINGTON)—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
HUNTINGTON (VINCENT HUNTINGTON)—Emery wheel dressers and cutters. Vincent Steel Process Co., Detroit, Mich.
HURON — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
HUSKY—Shovels, spades and scoops. Ames. Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
HUSTLER—Machinery dolly. The Service Caster & Truck Co., Albion, Mich.
HUTTO — Cylinder and hole grinders. Stevens Walden, Inc., Worcester, Mass.
HYCC—Alloy tool and die steel. Crucible Steel Co. of America, New York, N. Y.
HY-HEET—Electric melting furnaces. R. S. Products Corp., Philadelphia, Pa.
HY-SPEED—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HY-SPEED—Mortising and boring bits. Star Bit & Tool Co., Rockford, Ill.
HY TEST—Hose. New York Belting & Packing Co., Passaic, N. J.
HYALITE—Refractory brick. Quigley Co., New York, N. Y.
HYATT—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
HYCOE—Brake lining, hose, packing and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
HYDRAULIC — Bronze high pressure valves. The Wm. Powell Co., Cincinnati.
HYDRAULIC—Pump oilers. Eagle Mfg. Co., Wellsburg, W. Va.
HYDRO-POWER — Presses and pumps. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
HYDRO-PROOF—Insulating tape. Elkhart Rubber Works, Elkhart, Ind.
HYDRO-SEAL—Joint sealing compound. Quigley Co., Inc., New York, N. Y.
HYDROIL — Small and machine tools. Greenfield Tap & Die Corp., Greenfield, Mass.
HYDROLITE — Integral waterproofing. Vita-Var Corp., Newark, N. J.
HYDRONON—Waterproofing paint. The Barrett Co., New York, N. Y.
HYDROSEAL—Treatment for fire hose jackets. The B. F. Goodrich Co., Akron, Ohio.
HYGIENE — Hose. Home Rubber Co., Trenton, N. J.
HYLO—Lanterns. R. E. Dietz Co., New York, N. Y.
HYPER—Rotary chain (oil well). Link-Belt Co., Chicago, Ill.
HYPERION—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
HYPOWA—Shears, bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
HYPRESSURE JENNY — Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
HYPRO—Metal working planers. Cincinnati Planer Co., Oakley, Cincinnati, O.
HYRO — Metal punches. Parker-Kalon Corp., New York, N. Y.
HYSPEED—Gun metal bronze bars. Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HYTEMPITE—Refractory cement. Quigley Co., Inc., New York, N. Y.
HYTENS — Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.

I

I.X.L.—Gear products. Foote Bros. Gear & Machine Co., Chicago, Ill.
I.X.L.—Independent lathe chucks. Westcott Chuck Co., Oneida, N. Y.
IBECO—Transmission belting. Imperial Belting Co., Chicago, Ill.
IDEAL—Belt dressing. Detroit Oak Belting Co., Detroit, Mich.
IDEAL—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
IDEAL—Belting, hose and packings. Hamilton Rubber Mfg. Co., Trenton, N. J.
IDEAL—Car movers. H. B. Sackett Screen & Chute Co., Chicago, Ill.
IDEAL — Chain wrenches. Brunswick-Kroeschell Co., New Brunswick, N. J.
IDEAL—Electric tools. The Schauer Machine Co., Cincinnati, Ohio.
IDEAL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
IDEAL—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
IDEAL—Hollow augers. The A. A. Wood & Sons Co., Atlanta, Ga.
IDEAL—Hose. Home Rubber Co., Trenton, N. J.
IDEAL—Roadway boxes. S. E. T. Valve and Hydrant Co., New York, N. Y.
IDEAL—Soot cleaner. Perfection Grate & Stoker Co., Springfield, Mass.
IDEAL MOTOR—Babbitt metal. Murphy Metals Co., Chicago, Ill.
IHSEN—Flue cutter. Ajax Manufacturing Co., Pittsburgh, Pa.
ILGAIR—Ventilating fans. Ilg Electric Ventilating Co., Chicago, Ill.
IMICO—Unions and boilers. Illinois Malleable Iron Co., Chicago, Ill.
IMMUNITE—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
IMO—Rotary displacement pumps. Geo. H. Gibson Co., New York, N. Y.
IMP—Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPERIAL—Flint paper. Minnesota Mining & Mfg. Co., St. Paul, Minn.
IMPERIAL—Gas burners. Davison Combustion Co., Pittsburgh, Pa.
IMPERIAL—Leather belting. The Taylor Belting Co., Indianapolis, Ind.
IMPERIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
IMPERIAL WICK OILING—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED — Automatic alcohol blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPROVED—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
IMPROVED — Drill chucks. Westcott Chuck Co., Oneida, N. Y.
IMPROVED — Lubricators. Consolidated Brass Co., Detroit, Mich.
IMPROVED—Wire belt lacing. Kerr & Co., Inc., New York, N. Y.
IMPROVED FOUNDRY—Electric and belt driven grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED MONARCH—Tampico sections. The Osborn Manufacturing Co., Cleveland, Ohio.
IMPROVED MONITOR—Steel wire wheel brushes. Osborn Manufacturing Co., Cleveland, Ohio.
IMPROVED PYRAMID — Horizontal, double-acting piston pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.

IN-BILT—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
INBRACO—Tank fittings. The Indiana Brass Co., Frankfort, Ind.
INCASED STEELKOTE—Paint for steel encased in concrete. Vita-Var Corp., Newark, N. J.
INCO—Monel metal and nickel. The International Nickel Co., New York, N. Y.
INCOMPARABLE — Independent chucks. The Cushman Chuck Co., Hartford, Conn.
INDEPENDENCE—Packing. Home Rubber Co., Trenton, N. J.
INDEPENDENT—Drill presses. Rockford Machine Tool Co., Rockford, Ill.
INDEPENDENT—Sight feed lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
INDESTRUCTIBLE — Conveyor belting, hose and packing. New York Belting & Packing Co., Passaic, N. J.
INDESTRUCTIBLE—File and tool handles. J. L. Osgood Machinery & Tool Co., Inc., Buffalo, N. Y.
INDESTRUCTIBLE—Steel gongs or bells. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
INDESTRUCTIBLE ROOF PRESERVER—Roof paint. Maire Paint & Mfg. Co., Minneapolis, Minn.
INDESTRUCTO—Truck casters. Divine Brothers Co., Utica, N. Y.
INDIA—Oil stones. Behr-Manning Corp., (Norton Abrasives), Troy, N. Y.
INDIAN CHIEF—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
INDIAN RED—Belting and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
INDIAN TAN — Lace leather and cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
INDIANA—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
INDO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
INDUSTRIAL TYPE—Speed reducers. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
INGACLAD—Stainless clad steel. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGALLS—Tube scraper and combination tube scraper and brush. A. W. Chesterton Co., Boston, Mass.
INGALLS IMPROVED—Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
INGERSOLL SPECIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGHAM—Drag scrapers. Lansing Co., Lansing, Mich.
INNER-CORD — Stitched canvas belting. W. E. Hettrick & Son, Inc., Toledo, Ohio.
INNERDUCK—Combination of leather and fabric belting. The Hettrick Mfg. Co., Toledo, Ohio.
INSA-LUTE—Case hardening and tempering compounds. Technical Products Co., Pittsburgh, Pa.
INSPIRATION—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
INSTANT BELT CLEANER—Dirt and grease remover. F. Raniville Co., Grand Rapids, Mich.
INSUL—Canvas belting. The Raniville Co., Grand Rapids, Mich.
INSULATED SAHARA—Fabric belting. Imperial Belting Co., Chicago, Ill.
INSULATINE—Sealing cements and compounds. Insulatine Co., Inc., New York, N. Y.
INSULBRIX—Refractory brick. Quigley Co., Inc., New York, N. Y.
INSULOK CROWNER — Bolt, nut and screw caps. The Rawlplug Co., Inc., New York, N. Y.
INSWELL ELECTRIC WELD—Coil and cable chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
INTERCHANGE—Friction pulley clutches and cutoff couplings. Kinney Manufacturing Co., Boston, Mass.
INTERNATIONAL — Belting, hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
INVADER — Transmission belting and sheet packing. The Republic Rubber Co., Youngstown, Ohio.
INVINCIBLE—Mechanical oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
INVINCIBLE—Polishing wheels. Hanson-Van Winkle-Munning Co., Matawan, N. J.
IRENEW—Globe, angle and check valves. The Wm. Powell Co., Cincinnati, Ohio.
IRON CLAD—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
IRON FRIEND—Flux. Federated Metals Corp., New York, N. Y.
IRON HORSE—Cans, pails, shovels, etc. Rochester Can Co., Rochester, N. Y.
IRONCLAD—Goggles. Chicago Eye Shield Co., Chicago, Ill.
IRONE—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
IROVERSO—Iron body nickel seat valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
IWANA—Hair belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.

J

J. & B.—Filing and sawing machinery. La Porte Machine & Tool Co., La Porte, Ind.
J. C. M.—Electric floor machines. The Kent Company, Inc., Rome, N. Y.
J. & H.—Demagnetizers. J. & H. Electric Co., Providence, R. I.
JMC—Expansion reamers. Scully Steel & Iron Co., Chicago, Ill.
J.M.D.—Jute brattice cloth. Johnston-Morehouse-Dickey Co., Pittsburgh, Pa.
JACK—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JACK FROST—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
JACKBITS—Detachable rock drill bits. Ingersoll-Rand Co., New York, N. Y.
JACKHAMER—Hammer drills. Ingersoll-Rand Co., New York, N. Y.
JACKLIFT—Lift trucks. Lewis-Shepard Co., Watertown Sta., Boston, Mass.
JADE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
JAHNS—Engine governors. Massey Machine Co., Watertown, N. J.
JAK-TUNG—Factory trucks. Link-Belt Co., Chicago, Ill.
JAMES—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
JAVA (Fitler)—Sisal rope. The Edwin H. Fitler Co., Philadelphia, Pa.
JENNINGS & GRIFFIN—Bit extensions, chisels, saws, tool chests, etc. C. E. Jennings & Co., Yalesville, Tracy, Conn.
JERARCO—Sheet packing. Jenkins Bros., New York, N. Y.
JEROME-TYPE — Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
JERRY—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JEWEL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
JEWEL—Tool handles. Hartwell Brothers, Memphis, Tenn.
JEWETT—Packings and gaskets. Johns-Manville, New York, N. Y.
JIM—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JO-CHROME—Flat leather belting. Johnson Belting Co., New York, N. Y.
JOBECO—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
JOPACO—Asphalt roofing and asbestos fiber roof coating. Jos. C. Paulus & Co., Philadelphia, Pa.
JORGENSEN — Hand screws, steel bar clamps and drop forged C clamps. Adjustable Clamp Co., Chicago, Ill.
JOY—Air hose couplers. H. D. Edwards & Co., Detroit, Mich.
JUBILEE—Hose. New York Belting & Packing Co., Passaic, N. J.
JUDSON—Hose. Goodall Rubber Co., Philadelphia, Pa.
JUMBO—Gasoline and kerosene stationary engines. Nelson Bros. Co., Saginaw, Mich.
JUMBO—Hose and belting. Home Rubber Co., Trenton, N. J.
JUMBO—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
JUNIATA—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
JUNIOR—Lanterns. R. E. Dietz Co., New York, N. Y.
JUNIOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio
JUNIOR—Stub lathe. Sundstrand Machine Tool Co., Rockford, Ill.
JUNIOR-X-TRACK TOR—Car unloaders and bucket loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
JUPITER—Hose. The B. F. Goodrich Co. Akron, Ohio.
JUSTATE—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
JUSTRITE—Spray nozzle. W. D. Allen Mfg. Co., Chicago, Ill.

K

K.C.—Ice can filler. E. I. Miller Mfg. Co., Kansas City, Mo.
K-C—Electric grinders and motors. Kingston-Conley Electric Co., Jersey City, N. J.
"K & J"—Wheelbarrows and trucks. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
K-MASTER—Inverted bucket steam traps and strainers. Kaye & McDonald, Inc., West Orange, N. J.
K-O—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
K.O—One revolution clutch. Conway Clutch Co., Cincinnati, Ohio.
K. U.—Packings and gaskets. Johns-Manville, New York, N. Y.
K & T—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
KABLE KORD—Belting. L. H. Gilmer Co., Tacony, Philadelphia, Pa.
KAKTUS KID—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
KALBER KASTER—Casters. The Hamilton Caster Mfg. Co., Hamilton, Ohio.
KALKTITE—Asphalt cement. Presstite Engineering Co., St. Louis, Mo.
KANKA—Roof coating. American Asphalt Paint Co., Chicago, Ill.
KANTARK—Non-renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
KAOLIN—Fire clay brick. General Refractories Co., Philadelphia, Pa.
KARBONITE—Sheet packings. New York Belting & Packing Co., Passaic, N. J.
KARNS—Valve cups. Parker Cup & Specialty Works, Parkers Landing, Pa.
KARROPAK—Treated paper packing material. Felt Products Mfg. Co., Chicago.
KASSON—Grease. Enterprise Oil Co., Inc., Buffalo, N. Y.
KAST SET—Castable refractory. A. P. Green Fire Brick Co., Mexico, Mo.
KATCHALL—Waste barrels. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KATHODE—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
KEARNEY & FOOT—Files and rasps. Nicholson File Co., Providence, R. I.
KEARSARGE — Packings and gaskets. Johns-Manville, New York.
KEEP-IT-TITE — Valve stem packing. Home Rubber Co., Trenton, N. J.
KEFRAKTO — Granular refractory for surface coating. Keystone Refractories Co., New York, N. Y.
KELLER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
KELLY-COVINGTON—Shale excavators. Covington Machine Co., Inc., Covington, Va.
KENNETT—Cans, barrels, trucks, etc. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KENSINGTON—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
KERN—Hoists. Construction Machinery Co., Waterloo, Iowa.
KEY—Graphite paste. Key Co., East St. Louis, Ill.
KEY-TITE—Pipe joint compound. Key Co., East St. Louis, Ill.
KEYSTONE—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
KEYSTONE — Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KEYSTONE—Bar folders. Niagara Machine & Tool Works, Buffalo, N. Y.
KEYSTONE — Canvas stitched belting. Manheim Mfg. & Belting Co., Manheim, Pa.
KEYSTONE—Chain hoists. The Harrington Co., Philadelphia, Pa.
KEYSTONE—Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
KEYSTONE—Hand saws and home workshop saws and tools. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
KEYSTONE—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
KEYSTONE—Spring and lock washers. The Positive Lock Washer Co., Newark, N. J.
KEYSTONE—Vises. Hollands Mfg. Co., Erie, Pa.
KEYSTONE TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
KHASIA—Emery. Keystone Emery Mills, Philadelphia, Pa.
KILINDO-NON ROTATING—Wire rope. Macwhyte Co., Kenosha, Wis.
KING—Hose couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
KING—Leather belting and packing. Detroit Oak Belting Company, Detroit, Mich.
KING OF CLAMPS — Hose clamps. Clamps, Inc., Brooklyn, N. Y.
KING-CLIP—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
KINGHORN—Pump valves. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KINGS—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KIP—Brushes. Midwest Broom Manufacturing Co., Circleville, Ohio.
KISKI—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
KITE—Tool handles. American Handle Co., Jonesboro, Ark.
KLEEN-KUT—Files and rasps. Carson-Newton Co., Newark, N. J.
KLEEN-KUT—Paste grinding compound and soluble oil. D. A. Stuart Oil Co., Chicago, Ill.
KLEEN-KWALITY KLOTHS — Wiping cloths, etc. Aaron Ferer & Sons, Inc., St. Louis, Mo.
KLEENAIR—Respirators, helmets and hoods. The Safety Equipment Service Co., Cleveland, Ohio.
KLEERVU — Gauge glass protectors. Wright-Austin Co., Detroit, Mich.

UMI

KLENZO—Washing powder. Ensign Products Co., Cleveland, Ohio.
KLINGERIT—Compressed asbestos, sheet packing and gaskets. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KLINGTITE—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.
KLIPLOK—Fuse test and ground clamps. Trico Fuse Mfg. Co., Milwaukee, Wis.
KNIFE HANDLE—Wrenches. Bemis & Call Co., Springfield, Mass.
KNIGHT—Portable saw mills and saw mill equipment. The Kent Machine Co., Cuyahoga Falls, Ohio.
KLOSE-KUT—Hack saws. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
KNO-LEAK—Pipe joint cement or compound. Technical Products Co., Pittsburgh, Pa.
KNOT KLIPPER—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
KOERTING—Jets. Schutte & Koerting Co., Philadelphia, Pa.
KOHINOOR—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
KONGO—Brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
KONCREX—Cement floor paint. A. C. Horn Co., Long Island City, N. Y.
KONTAX-CHROME — Leather belting. Geo. Rahmann & Co., New York, N. Y.
KOPS—Mask face piece. Mine Safety Appliances Co., Pittsburgh, Pa.
KORODLESS—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
KORTLANDT—Rubber belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
KROMAX — Leather packings. Watson-Stillman Co., Roselle, N. J.
KROME—Belting, belt butts, lace leather, cut lacing, packing discs, leather check valves, plunger washers, fan belts, etc. The Chicago Rawhide Mfg. Co., Chicago.
KROMEPATCH—Dry chrome ore cement. E. J. Lavino & Co., Philadelphia, Pa.
KROMIDE—Red lead preservative. A. C. Horn Co., Long Island City, N. Y.
KROMOKE-COMBINATION — Leather belting. Geo. Rahmann & Co., New York.
KRONA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
KRUMITE—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
KWALITY KASTER—Casters. The Hamilton Caster Mfg. Co., Hamilton, Ohio.
KWART-KWICK—Barrel pumps. Viking Pump Co., Cedar Falls, Iowa.
KWIK-KUT—Power hack saw machine. E. C. Atkins and Co., Indianapolis, Ind.
KYMOI—Rubber packing. Crandall Packing Co., Palmyra, N. Y.

L

L. A.—Electric motors and generators. The Louis Allis Co., Milwaukee, Wis.
L & N—Electrical measuring instruments, furnaces, etc. Leeds & Northrup Co., Philadelphia, Pa.
L & P—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
LP—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
L-R—Flexible couplings. Lovejoy Tool Works, Chicago, Ill.
L.R.D.—Bronze valves. Grinnell Co., Inc., Providence, R. I.
LX COMPOSITION — Wire belt lacing. Manufacturers' Belt Hook Co., Chicago.
L-XX—High speed tool bits. Ludlum Steel Co., Watervliet, N. Y.
LA FRANCE—Fire department and safety supplies. American-LaFrance and Foamite Corp., Elmira, N. Y.
LA BELLE SLOW TEMPERED—Agricultural discs. Crucible Steel Co. of America, New York, N. Y.
LACROSSE—Belting. Goodall Rubber Co., Philadelphia, Pa.
LADLE BRONZE—Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
LAIDLAW—Air, gas and ammonia compressors. Worthington Pump and Machinery Corp., Harrison, N. J.
LAMINUM—Shims. Laminated Shim Co., Inc., Long Island City, N. Y.
LANDAHL—Back stops, conveyor. Fairfield Engineering Co., Marion, Ohio.
LANE—Door hangers, tackle blocks and overhead carrier systems, etc. Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
LANGDON—Mitre boxes. Millers Falls Co., Greenfield, Mass.
LANO FINISH—Leather belt dressing. F. Raniville Co., Grand Rapids, Mich.
LARSON'S — Babbitt metal. National Bearing Metals Corp., St. Louis, Mo.
LAWN TRIMMER — Worcester Lawn Mower Co., Worcester, Mass.
LAWSON—Wood pulleys, hand trucks and paper mill supplies. Menasha Wood Split Pulley Co., Menasha, Wis.
LAY-SET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LE PAGE'S—Glue. Russia Cement Co., Gloucester, Mass.
LEA-SIMPLEX—Saws. The Earle Gear & Machine Co., Philadelphia, Pa.
LEADER—Die stocks. Oster-Williams, Cleveland, Ohio.
LEADER—Sand suction and steam hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
LEADER—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
LEADER—Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
LEATHER-TO-METAL—Belting cement. F. Raniville Co., Grand Rapids, Mich.
LEBANCO—Carriage, machine and lag bolts. The Lamson & Sessions Co., Cleveland, Ohio.
LECOOK—Rod packing. C. Lee Cook Manufacturing Co., Inc., Louisville, Ky.
LECTROGRINDER — Swing frame grinder. Pittsburgh Engineering Works, Pittsburgh, Pa.
LEECHBURG — Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
LEHIGH—Leather belting. Charles Bond Co., Philadelphia, Pa.
LEN MAR — Water and steam proof leather belting. Jerry Bros. Belting Co., Richmond, Va.
LENOX—Conveyor belting. Russell Manufacturing Co., Middletown, Conn.
LENOX—Fire hose. New York Belting & Packing Co., Passaic, N. J.
LENOX—Hack and band saws, screw drivers and glass cutters. American Saw & Mfg. Co., Springfield, Mass.
LERING—Factory trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
LEVIATHAN — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
LEVOLIER—Switch brackets and sockets. McGill Manufacturing Co., Valparaiso, Ind.
LEWIS—Flow detectors. Central Automatic Sprinkler Co., Philadelphia, Pa.
LEY-BUSHED — Chain. Link-Belt Co., Chicago, Ill.
LIBERTY—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
LIBERTY — Motor babbitt. Federated Metals Corp., New York, N. Y.
LIBERTY—Packings and gaskets. Johns-Manville, New York, N. Y.
LIBERTY—Protective paints and roof coatings. Carter Paint Co., Liberty, Ind.
LIBERTY MOTOR GENUINE — Motor bearing metal. Federated Metals Corp., New York, N. Y.
LIFE-TIME—Belt idlers. Fairfield Engineering Co., Marion, Ohio.
LIFETIME — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
LIFETIME — Welding torches. Smith Welding Equipment Corp., Minneapolis, Minn.
LIFT — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LIFTABOUT—Light weight hoists. David Round & Son, Cleveland, Ohio.
LIGHT SERVICE—C-Clamps. J. H. Williams & Co., New York, N. Y.
LIGHTNING—Belting. Home Rubber Co., Trenton, N. J.
LIGHTNING—Hose clamps. Harrisburg Stamping Co., Harrisburg, Pa.
LIGHTNING—Hose couplings. Handlan-Buck Mfg. Co., St. Louis, Mo.
LIGHTNING—Sandpaper, cloth and combination. Behr-Manning, Corp., Troy, N. Y.
LIGHTNING — Snow pushers. Wirt & Knox Mfg. Co., Philadelphia. Pa.
LIGHTNING—Twist drills. Greenfield Tap & Die Corp., Greenfield, Mass.
LIGHTWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
LILY WHITE—Oilstones. Behr-Manning Corp. (Norton Abrasives), Troy N. Y.
LIMESTONE—Wood split and wood motor pulleys. Ohio Valley Pulley Works, Inc., Maysville, Ky.
LINCWELD—Motors. The Lincoln Electric Co., Cleveland, Ohio.
LINDSTROM—Wire cutters, nippers, pincers and pliers. Hammel, Riglander & Co., Inc., New York, N. Y.
LINE OF MINE — Packings. New York Belting & Packing Co., Passaic, N. J.
LINE PIPE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
LINK STAR—Tool handles. O. P. Link Handle Co., Salem, Ind.
LION—Conveyor belts. Link-Belt Co., Chicago, Ill.
LION—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
LION—Hose valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LION PAW—Solid woven cotton and fabric belting. Buckner Process Co., Worcester, Mass.
LIONITE—Abrasive grains and grinding compound. General Abrasive Co., Inc., Niagara Falls, N. Y.
LIQUID COPPER—Paint. National Copper Paint Corp., Chicago, Ill
LIQUIDIZED TILE — Interior factory paint. Ensign Products Co., Cleveland, Ohio.
LISTOBESTOS — Asbestos listings and tapes. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
LITAN—Grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
LITH—Insulating slab. Union Fibre Sales Co., Winona, Minn.
LITTLE BLACKSMITH (THE)—Punches, shears and angle iron cutters. J. F. Kidder Mfg. Co., Inc., Burlington, Vt.
LITTLE CUT UP—Electric jig saw. Beebe Bros., Seattle, Wash.
LITTLE DALLETT—Surfacer. The Dallett Co., Philadelphia, Pa.
LITTLE GIANT — Clamp fixtures and press screws. Adjustable Clamp Co., Chicago, Ill.
LITTLE GIANT—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
LITTLE GIANT—Farrier's tool boxes. B. B. Noyes Co., Greenfield, Mass.
LITTLE GIANT — Hand bench shears. Mohn Machine Co., Reading, Pa.
LITTLE GIANT—Hydraulic presses. The Cardwell Machine Co., Richmond, Va.
LITTLE GIANT—Hydraulic pressure test pump. The Deming Co., Salem, Ohio.
LITTLE GIANT—Lanterns. R. E. Dietz Co., New York, N. Y.
LITTLE GIANT—Padlocks. Master Lock Co., Milwaukee, Wis.
LITTLE GIANT—Pneumatic and electric tools. Chicago Pneumatic Tool Co., New York, N. Y.
LITTLE GIANT—Punches, shears and combined tools. T. J. Gundlach Machine Co., Belleville, Ill.
LITTLE GIANT—Screw plates, dies, die stocks, etc. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE GIANT Jr.—Screw plates and die stocks. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE WIZARD—Roller bearing hoists. David Round & Son, Cleveland, Ohio.
LITTLE WIZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
LIVE OAK—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
LIVE OAK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
LOCRO—Chrome. Crucible Steel Co. of America, New York, N. Y.
LO-SPEED—Band saws. Delta Manufacturing Co., Milwaukee, Wis.
LOAD LIFTER—Electric hoists. Shaw-Box Crane & Hoist Co., Inc., Muskegon, Mich.
LOCK LINK—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
LOCK-ON—Socket wrench feature. Blackhawk Mfg. Co., Milwaukee, Wis.
LOCKWOVEN—Stitched solid woven belting. The American Belting Companies, Baltimore, Md.
LOCUST—Leather belting. W. S. Nott Co., Minneapolis, Minn.
LODI—Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
LOK CROWNER—Caps for sealing, concealing and decorating screw heads, bolts, nuts, etc. The Rawlplug Co., Inc., New York, N. Y.
LONG LIFE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
LONG-LIFE—Industrial aprons. The M. F. Murdock Co., Akron, Ohio.
LONG LIFE—Turned hardwood products. Lignum-Vitae Products Corp., Jersey City, N. J.
LONGLIFE—Belting. The B. F. Goodrich Co., Akron, Ohio.
LONGLIFE—Roof cement. Flexrock Co., Philadelphia, Pa.
LOONTEE—Sander brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
LOSANT—Conveyor belting, hose and diaphragm sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
LOTENS—Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
LOTUS—Babbitt metal. Lumen Bearing Co., Buffalo, N. Y.
LOW DOWN—Tank and spray pumps. The F. E. Myers & Bro. Co., Ashland, Ohio.
LOXIN—Machine bolt and screw expansions. Star Expansion Bolt Co., New York, N. Y.
LOXON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
LUBALL—Lubricant. Crandall Packing Co., Palmyra, N. Y.
LUBRA—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
LUBRI HIDE—Gear lubricant. The Chicago Rawhide Mfg. Co., Chicago, Ill.
LUBRI-TASGON—Penetrating oil. The Wilbur & Williams Co., Boston, Mass.
LUBRICO—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.

LUBRICO PREMIER—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, O.
LUBRICORE—Metallic stuning box packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
LUBRIGUM—Power lubrication equipment. Alemite Corp., Chicago, Ill.
LUBRITE — Self lubricating bushings. Merriman Bros., Inc., Boston, Mass.
LUBROSEAL—Rubber lubricating and sealing compound. The B. F. Goodrich Co., Akron, Ohio.
LUBROTITE—Valves. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
LUPT—Slip ring grinder. Ideal Commutator Dresser Co., Sycamore, Ill.
LUMINO — Aluminum Paint. Koppers Products Co., Pittsburgh, Pa.
LUMMIT—Copper asbestos gaskets. Akron Metallic Gasket Co., Akron, Ohio.
LUMNITE—White interior factory paint. The Reardon Co., St. Louis, Mo.
LUNAR—Paint. Otley Paint Mfg. Co., Chicago, Ill.
LUX—Fire extinguishers. Walter Kidde & Co., Inc., Bloomfield, N. J.
LUX-O-MATIC — Automatic fire extinguishing system. Walter Kidde & Co., Inc., Bloomfield, N. J.
LUZERNE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYMPIC GREEN STRAND—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LYNX — Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYONORE—Metal products. Lyon Conklin & Co., Inc., Baltimore, Md.
LYTESTRONG—Steel shaft hangers. Bond Foundry and Machine Co., Manheim, Pa.

M

M—Leather belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
McC. SPECIAL—Leather belting. McCauley Belting Co., Chicago, Ill.
McCAFFREY—Files and rasps. Nicholson File Co., Providence, R. I.
McCLELLAN—Files and rasps. Nicholson File Co., Providence, R. I.
McL—Leather belting. F. W. Lanathan & Son, Lawrence, Mass
M.B.C. — Swing check valves. Messmer Brass Co., St Louis, Mo.
M. D. CO.—Rotary pumps. Mechanical Devices Co., Bloomington, Ill.
M J L—Flow indicators, regulators, etc. Morey & Jones, Ltd., Los Angeles, Calif.
MIF—Pipe fittings and pole line hardware. Malleable Iron Fittings Co., Branford, Conn.
MLP—Packing. Michigan Leather Packing Co., Inc., Detroit, Mich.
M & M—Boiler feeders and water level regulators. McDonnell & Miller, Chicago, Ill.
M & M—Hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
M-P—Washers. The Master Products Co., Cleveland, Ohio.
M-R-C—Thrust ball bearings. Gurney Division, Marlin-Rockwell Corp., Jamestown, N. Y.
M-S-A—Safety equipment. Mine Safety Appliances Co., Pittsburgh, Pa.
McDANIEL—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
McFEELY—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McGREGOR—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
McKIM—Gaskets. McCord Radiator & Mfg. Co., Detroit, Mich.
McKNIGHT — Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McWANE—Cast iron pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
MAC (THE)—Grinders. The McGonegal Mfg. Co., East Rutherford, N. J.
MAC-IT—Screws and bolts. The Strong, Carlisle & Hammond Co., Cleveland, O.
MACHINEBRONZE — Bearing bronze. Lumen Bearing Co., Buffalo, N. Y.
MACK—Rivet set clips. Lovejoy Tool Works, Chicago, Ill.
MACOAK — Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
MAFORCO—Steel trucks, racks, etc. Market Forge Co., Everett, Mass.
MAGAZINE — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
MAGIC—Garden and water hose and rod packings. New York Belting & Packing Co., Passaic, N. J.
MAGNET—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MAGNUS—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
MAHR — Industrial furnaces. Diamond Iron Works, Inc., Minneapolis, Minn.
MAJESTIC—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MAJOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
MAKE-SHUR—Thread button set, for making blind holes. National Machine Tool Co., Racine, Wis.
MALABAR—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
MALACCA—Liquid & plastic rubbers. Manson Glover, Stoughton, Mass.
MALTESE CROSS — Hose and belting. Hewitt Rubber Corp., Buffalo, N. Y.
MAN SIZE—Steam traps. The V. D. Anderson Co., Cleveland, Ohio.
MANATI—Waterproof leather belting. J. Bachmann & Co., Inc., New York, N. Y.
MANGANAL — Electrodes and welding rods. Stuly-Sickles Co., Newark, N. J.
MANGANWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
MANIERRE—Box car loaders. Link-Belt Co., Chicago, Ill.
MANTEX — Fire hose. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
MARATHON BRAND—Wipers, waste, etc. G. Mathes Co., St. Louis, Mo.
MARCO—Belting, hose, dredging sleeves, friction and splicing tape. The Mechanical Rubber Co., Passaic, N. J.
MARINE — Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
MARINE — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MARINE — Waterproof leather belting. McCauley Belting Co., Chicago, Ill.
MARINE GENUINE—Babbitt. Gardiner Metal Co., Chicago, Ill.
MARK—Carriage makers' clamps, "C," boiler and machinists' clamps. Adjustable Clamp Co., Chicago, Ill.
MARKERILL—Marking devices. Henry Moss & Co., Inc., Brooklyn, N. Y.
MARKSITE — Magnesite brick. General Refractories Co., Philadelphia, Pa.
MARSH-CAPRON—Concrete mixers and contractors' portable saw tools. Construction Machinery Co., Waterloo, Iowa.
MARTELL—Adjustable reamers. Taft-Pierce Mfg. Co., Woonsocket, R. I.
MARTELL—Packings. The France Packing Co., Tacony, Philadelphia, Pa.
MARVEL—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
MARVEL—Blowers, exhausters and exhaust fans. Electric Blower Co., Boston, Mass.
MARVEL—Grinders. Chicago Pulley & Shafting Co., Chicago, Ill.
MARVEL—Hack and band saw machines and blades, hole saws, punches and shears, tapping machines, hack saw frames, drill press vises, etc. Armstrong-Blum Mfg. Co., Chicago, Ill.
MARVEL—Oil pumps. The Lunkhenheimer Co., Cincinnati, Ohio.
MARVEL — Pumps and water systems. The Deming Co., Salem, Ohio.
MARVELOUS—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
MARVEX—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
MASCO—Mops, wiping cloths, waste, etc. Massasoit Mfg. Co., Fall River, Mass.
MASON—Condensation meters. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
MASSACHUSETTS — Fans, blowers and unit heaters. The Bishop & Babcock Sales Co., Cleveland, Ohio.
MASTER—Drilling machines. Superior Machine Tool Co., Kokomo, Ind.
MASTER—Friction clutches and hoists. Moore-Master Mfg. Co., Chicago, Ill.
MASTER—Hand tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MASTER—Pin pattern coping saws and hack saws. W. O. Barnes Co., Inc., Detroit, Mich.
MASTER—Hose, belting, etc. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MASTER—Mixers. Construction Machinery Co., Waterloo, Iowa.
MASTER—Socket head cap screws and set screws. Hartford Machine Screw Co., Hartford, Conn.
MASTER—Spray guns and compressors. Burning Brand Co., Chicago, Ill.
MASTER — Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
MASTER—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
MASTER ANTIFRICTION — Babbitt metal. Murphy Metals Co., Chicago, Ill.
MASTER METAL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
MASTER PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
MASTER ROTARY SCRAPER — Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
MASTER STILLSON — Pipe wrenches. Walworth Co., New York, N. Y.
MASTER TOOLMAKER—Drill press attachment. C. C. Craley Mfg. Co., Shillington, Pa.
MASTERENCH — Pipe and ratchet wrenches. Heller Bros. Co., Newark, N. J.
MATCHIT — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
MATCHLESS — I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
MATHER—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
MAUREY—Steel V pulleys. Maurey Mfg. Corp., Chicago, Ill.
MAUREYPREST—Steel V pulleys. Maurey Mfg. Corp., Chicago, Ill.
MAX-EL — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
MAXECON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
MAXLIFE—Conveyor belting. The Jeffrey Manufacturing Co., Columbus, Ohio.
MAXI—Taps. Greenfield Tap & Die Corp., Greenfield, Mass.
MAXI-MOTOR—Tool part grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MAXTIC—Rubber belt dressing. Norton Belting Co., Wellesley Hills, Mass.
MAYARI—Track bolts. Bethlehem Steel Co., Bethlehem, Pa.
MAYFLOWER — Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
MAZDA CLIMAX—Oil burners. E. L. Miller Mfg. Co., Kansas City, Mo.
MECHANICAL BLACKSMITH HELPER—Power hammers. Blacker Engineering Corp., New York, N. Y.
MECHANICAL WEIGHMAN — Hopper scales. Merrick Scale Mfg. Co., Passaic, N. J.
MECHANICS' SPECIAL—Hand power tool grinders. Luther Grinder Co., Milwaukee, Wis.
MECO — Burners, conveyors, hoists, screens, etc. The Manufacturers Equipment Co., Dayton, Ohio.
MECO — Regulators, torches, acetylene generators, etc. Modern Engineering Co., St. Louis, Mo.
MEESECO — Friction clutches, oil well countershafts and short center belt drives. Link-Belt Co., Chicago, Ill.
MERCURY—Electric soldering irons. Vulcan Electric Co., Lynn, Mass.
MERRICK—Wrenches. Bemis & Call Co., Springfield, Mass.
MERRIMACK — Leather belting. Page Belting Co., Concord, N. H.
MERUCO — Compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
MESABA—Chain. S. G. Taylor Chain Co., Hammond, Ind.
METALBAC—Metal gasket design. Victor Mfg. & Gasket Co., Chicago, Ill.
METALBESTOS—Piston packing. A. W. Chesterton Co., Boston, Mass.
METALITE—Sand cloth. Behr-Manning Corporation, Troy, N. Y.
METALLIC—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
METALLIZER—Metal spray guns. Metallizing Co. of America, Inc., Los Angeles, Cal.
METALUTE—Furnace cement and waterproofing compounds and paints. Technical Products Co., Pittsburgh, Pa.
METRIC — Mechanical packing. Hewitt Rubber Corp., Buffalo, N. Y.
METROPOLITAN — Injectors. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
MEXICAN — Graphite products. The United States Graphite Co., Saginaw, Mich.
MEXIKOMO—Fire brick mortar. A. P. Green Fire Brick Co., Mexico, Mo.
MEXKO—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
MEXOLINE—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
MEY-OBORN—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
MEZZO — Drills. The Cleveland Twist Drill Co., Cleveland, Ohio.
MIAMI—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
MIAMI—Oil cups. The Lunkhenheimer Co., Cincinnati, Ohio.
MIBCO—Cast iron threaded pipe. Medina Iron & Brass Co., Medina, N. Y.
MICHIGAN — Lubricators and water gauges. Essex Brass Corp., Detroit, Mich.
MICHIGAN—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
MICRO-SET — Circular saw-rip fences. Delta Manufacturing Co., Milwaukee, Wis.
MICRO-SET—Saw tables and bench saws. Delta Mfg. Co., Milwaukee, Wis.
MICROFYNE—Graphite products. Joseph Dixon Crucible Co., Jersey City, N. J.
MIDGET—Clutches. The Carlyle Johnson Machine Co., Manchester, Conn.
MIDGET—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
MIDGET—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
MIDGET—Small tool post grinders. Dumore Co., Racine, Wis.
MILECO—Brake lining and blocks and clutch facings. L. J. Miley Co., Inc., Chicago, Ill.

UMI

MIL FLEX and **MIL FLEX MIDGET**—Hack saw blades and frames. The Henry G. Thompson & Son Co., New Haven, Conn.

MILFORD — Hack saw and band saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.

MILFORD MIDGET—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.

MILL WRIGHT—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.

MILLER LOCK TITE — Truck brakes. Safety Truck Brake Co., Inc., Appleton, Wis.

MILVACO—Brass valves and heating specialties, Milwaukee Valve Co., Milwaukee, Wis.

MILWAUKEE WROT—Washers. Wrought Washer Mfg. Co., Milwaukee, Wis.

MINE SERVICE—Air cocks. The Lunkenheimer Co., Cincinnati, Ohio.

MINNEAPOLIS — V-buckets. Link-Belt Co., Chicago, Ill.

MINUTE MAN—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.

MIRCS — Burners and furnaces. R. S. Products Corp., Philadelphia, Pa.

MIRICLEAN—Water softeners. Pacific Chemical Co., Los Angeles, Calif.

MR. PUNCH—Automatic drill tools. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.

MISSOURI ZINC CO.—Zinc. Federated Metals Corp., New York, N. Y.

MITER-SQUARE—Folding rules. Master Rule Mfg. Co., Inc., New York, N. Y.

MIXFLO—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.

MIXTER CHAMPION—Saw gummer. Ajax Manufacturing Co., Pittsburgh, Pa.

MIZZON—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.

MOBOLENE — Packings and gaskets. Johns-Manville, New York.

MOCCASIN—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.

MOCKING BIRD — Steam whistles. The Lunkenheimer Co., Cincinnati, Ohio.

MODEL—Rubber hose. Mulconroy Co., Inc., Philadelphia, Pa.

MODEL B—Lathes. Pratt & Whitney Co., Hartford, Conn.

MODEL STAR—Globe, angle, gate and check valves. The Wm. Powell Co., Cincinnati, Ohio.

MODENCO — Winches, strainers and car retarders. Covington Machine Co., Inc., Covington, Va.

MODERN HOME — Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.

MODOC — Belting. Goodall Rubber Co., Philadelphia, Pa.

MOGUL—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.

MOGUL—Packings and gaskets. Johns-Manville, New York, N. Y.

MOHAWK — Carpenters' tools. Millers Falls Co., Greenfield, Mass.

MOHAWK—Hose and belt. Hewitt Rubber Corp., Buffalo, N. Y.

MOISTAT—Humidifying attachment for saw mills. The National Dry Kiln Co., Indianapolis, Ind.

MOLY—Molybdenum type hack saws. Clemson Bros., Inc., Middleton, N. Y.

MOLY—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.

MONACO — Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.

MONARCH BALL METAL—Steel process babbitt. Monarch Metal Co., Chicago, Ill.

MONARCH—Butcher block brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

MONARCH—Crushing, grinding, mixing, elevating, conveying machinery. Sprout, Waldron & Co., Inc., Muncy, Pa.

MONARCH—Hack saw blades and frames. Great Neck Saw Mfrs., Inc., Great Neck, N. Y.

MONARCH—Lanterns. R. E. Dietz Co., New York, N. Y.

MONARCH — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.

MONARCH—Piston packing. A. W. Chesterton Co., Boston, Mass.

MONARCH—Polishing wheels. Hanson-Van Winkle-Munning Co., Matawan, N. J.

MONARCH—Ratchet drills. Keystone Mfg. Co., Buffalo, N. Y.

MONARCH — Tampico wheels, brushes. The Osborn Manufacturing Co., Cleveland, Ohio.

MONARCH — Tool handles. Hartwell Brothers, Memphis, Tenn.

MONARCH — Transmission belting and hose. Hewitt Rubber Corp., Buffalo.

MONARCH—Wire rope slings. Macwhyte Co., Kenosha, Wis.

MONARCH PEATHERWEIGHT—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.

MONARCH WHYTE STRAND—Wire rope. Macwhyte Co., Kenosha, Wis.

MONITOR—Car pullers. Stephens-Adamson Mfg. Co., Aurora, Ill.

MONITOR—Steel wire wheels. The Osborn Manufacturing Co., Cleveland, Ohio.

MONITOR — Windmills, pumps, pump jacks, etc. Baker Manufacturing Co., Evansville, Wis.

MONNISON — Factory and warehouse trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.

MONO-BILT — Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.

MONO-BOND—Bond for refractory ganister. Quigley Co., Inc., New York, N. Y.

MONO CAST—Pipe. American Cast Iron Pipe Co., Birmingham, Ala.

MONO LINE—Plastic fire brick. Quigley Co., Inc., New York, N. Y.

MONO-VEYOR—Elevating machinery. The Jeffrey Manufacturing Co., Columbus, O.

MONOBELT—Leather, belting. Alexander Bros., Inc., Philadelphia, Pa.

MONOBLOC—Centrifugal pumps. Worthington Pump and Machinery Corp., Harrison, N. J.

MONROVIAN — Water heaters. Coast Heater Manufacturing Co., Monrovia, Calif.

MOON—Grease cups. American Injector Co., Detroit, Mich.

MOORE—I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.

MOORE—Elevator buckets, bolts, spiral conveyors and accessories. Link-Belt Co., Chicago, Ill.

MOOSE—Belting, hose and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

MORAN'S—Belt couplings. Greene, Tweed & Co., New York, N. Y.

MOTEX—Babbitt metals, bearing bronze and solder. Consolidated Metals Corp., Detroit, Mich.

MOTOFLAR—Truck flares. Anthes Force Oiler Co., Fort Madison, Iowa.

MOTOR—Garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.

MOTOR KIT—Pliers. Crescent Tool Co., Jamestown, N. Y.

MOTORFLAKE—Graphite. Superior Flake Graphite Co., Chicago, Ill.

MOTORPUMP—General service pump. Ingersoll-Rand Co., New York, N. Y.

MOUNT GILEAD—Power sprayers. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.

MOUNT VERNON—Stitched canvas belting. The American Belting Companies, Baltimore, Md.

MULE-PULL—Clutches. Brown Engineering Co., Reading, Pa.

MULTI-FLAME—Flame torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.

MULTI-OILSTONE — Oilstones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.

MULTI-V—Belts. The B. F. Goodrich Co., Akron, Ohio.

MULTI-V-DRIVE—V-belt drives. Worthington Pump and Machinery Corp., Harrison, N. J.

MULTIANGULAR — Metallic packing. Northern Metallic Packing Co., St. Paul, Minn.

MULTICORD—Belts. The B. F. Goodrich Co., Akron, Ohio.

MULTIROL—Full type roller bearings. McGill Mfg. Co., Valparaiso, Ind.

MULTIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.

MULTIPELLOR—Deep well turbine water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.

MULTIPLE—Drafting instruments. Gilson Slide Rule Co., Stuart, Fla.

MULTIPLE LAMPLOCK — Lamp locks. Interlocking Products Co., New York, N. Y.

MULTIPLEX—Lubricators. Essex Brass Corp., Detroit, Mich.

MULTIPLEX — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.

MULTIPLEX—Saw for tile, brick, asbestos, etc. Red Star Products Corp., Cleveland, Ohio.

MULTISEAL—Cross-ribbed solid metal gasket. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.

MULTISERVIS — Water level controls. Nason Manufacturing Co., New York.

MULTISOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.

MULTITRIP—Box trucks, etc. G. B. Lewis Co., Watertown, Wis.

MULTO — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.

MUNICIPAL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.

MURDOCK — Air compressors and pumps. The Meier Electric & Machine Co., Indianapolis, Ind.

MYSTIC—Lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.

N

N B O—Packing hose and pump valves. Home Rubber Co., Trenton, N. J.

N-M-D—(Non-Metallic Disc) Globe, angle, check and quick operating. The Lunkenheimer Co., Cincinnati, Ohio.

N R G—Vertical condensation pumps. Weil Pump Co., Chicago, Ill.

NAIAD—Leather belting and belt cement. Detroit Oak Belting Co., Detroit, Mich.

NAMCO—Taps and dies. The National Acme Co., Cleveland, Ohio.

NAPIER—Saw blades. Metal Saw & Machine Co., Inc., Springfield, Mass.

NAPIER, JUNIOR — Band saw machines. Metal Saw & Machine Co., Inc., Springfield, Mass.

NARRO-LUBE—Oil tank. Gilbert & Barker Mfg. Co., Springfield, Mass.

NATIONAL — Conveyor belt. Link-Belt Co., Chicago, Ill.

NATIONAL—Pipe, casing, oil well tubing, etc. National Tube Co., Pittsburgh, Pa.

NATIONAL—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.

NATIONAL—Tool cases and chests. H. Gerstner & Sons, Dayton, Ohio.

NATIONAL — Wheelbarrows. Phillips, Doup & Co., Inc., Lindenhurst, Long Island, N. Y.

NATIONAL-SHELBY—Tubing and boiler tubes. National Tube Co., Pittsburgh.

NATIVE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.

NATROCO — Aluminum paint. The National Roofing Co., Tonawanda, N. Y.

NATROCO FACTORY WHITE—Mill white factory interior paint. The National Roofing Co., Tonawanda, N. Y.

NATURAL GRIP—Belt dressing. Chas. A. Schieren Co., New York, N. Y.

NAVAL — Nickel, anti-friction metal. Federated Metals Corp., New York, N. Y.

NAVAR—Paint. American Asphalt Paint Co., Chicago, Ill.

NAVY—Grease cups. Consolidated Brass Co., Detroit, Mich.

NAVY SCREW—Hoists. David Round & Son, Cleveland, O.

NAVY SPECIAL—Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.

NAVY SPECIAL—Leather belting. Baltimore Belting Co., Baltimore, Md.

NEATPACK — Wire solder. Federated Metals Corp., New York, N. Y.

NELLA—Hose cabinets. W. D. Allen Mfg. Co., Chicago, Ill.

NEMO—Asbestos cement. Smith & Kanzler, Inc., Elizabeth, N. J.

NEPAC—Leather belting. Capen Belting & Rubber Co., St. Louis, Mo.

NEPTUNE — Hose. Goodall Rubber Co., Philadelphia, Pa.

NEPTUNE DYNAMO — Leather belting. Graton & Knight Co., Worcester, Mass.

NEVA STAIN — Stainless steel. Ludlum Steel Co., Watervliet, N. Y.

NEVABUST — Screws, bolts and nuts. Rochester Machine Screw Co., Rochester, N. Y.

NEVER DRIP—Tapers. Columbia Wax Works, Ozone Park, N. Y.

NEVER SLIP—Lock washers. National Umbrella Frame Co., Germantown, Philadelphia, Pa.

NEVERBREAK—Lace leather and chrome belt lacing. California Tanning Co., St. Louis, Mo.

NEVERFAIL—Lubricators. American Injector Co., Detroit, Mich.

NEVERLEAK—Garden hose. The Mechanical Rubber Co., Passaic, N. J.

NEVERSLIP—Belt dressing. The White & Bagley Co., Worcester, Mass.

NEVERSLIP—Grease cups. American Injector Co., Detroit, Mich.

NEVERSLIP—Leather belting. Page Belting Co., Concord, N. H.

NEVERSLIP—Spring and lock washers. Philadelphia Steel & Wire Corp., Philadelphia, Pa.

NEVERTIP—Trucks. The Excelsior Plimptruck Co., Stamford, Conn.

NEW BRITAIN—Drill chucks. Union Mfg. Co., New Britain, Conn.

NEW ALERT — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.

NEW BADGER SLIP PROOF—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.

NEW CASTLE — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.

NEW EASY—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.

NEW EMPIRE—Speed indicators. Greene, Tweed & Co., New York, N. Y.

NEW ECLIPSE—Tapping machines. Hays Manufacturing Co., Erie, Pa.
NEW LIFE—Belt dressing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NEW MULESKIN—Leather aprons. California Tanning Co., St. Louis, Mo.
NEW-NEVER-SLIP—Car movers. Appleton-Atlas Car Mover Corp., Milwaukee.
NEW PRINCIPLE—Floor flanges. Moore Flange Corp., New York, N. Y.
NEW PROCESS — Cotton covered rubber hose. Mulconroy Co., Inc., Philadelphia.
NEW STYLE PAULUS—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
NEW TYPE—Oil tank wagon hose. Goodall Rubber Co., Philadelphia, Pa.
NEWMAN—Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
NEWTON—Milling machines, rotary planers, rail drills, etc. Consolidated Machine Tool Corp. of America, Rochester, N. Y.
NEWTYPE—Boots. Goodall Rubber Co., Philadelphia, Pa.
NEWTYPE—Fire hydrants and water gate valves. The Kennedy Valve Mfg. Co., Elmira, N. Y.
NIAGARA—Bolts. Buffalo Bolt Co., North Tonawanda, N. Y.
NIAGARA—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
NIAGARA—Emery. Keystone Emery Mills, Philadelphia, Pa.
NIAGARA—Flat leather belting. Johnson Belting Co., New York, N. Y.
NIAGARA — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
NIAGARA—Water, hot water and oil meters, strainers and air release valves. Buffalo Meter Co., Buffalo, N. Y.
NICE—Bearings. Boston Gear Works, Inc., North Quincy, Mass.
NICHROME—Dipping baskets. The W. S. Tyler Co., Cleveland, Ohio.
NICKEL STEEL BRAND—Saws and saw blades. Frank W. Swett & Son, Chicago.
NIGHT DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NIGRUM—Oilless wood bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
NIKOLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
NIKROME—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
1916—Ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
NITE DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NITRALLOY—Alloy steel. Ludlum Steel Co., Watervliet, N. Y.
NO-LEAK—Apron conveyors. Link-Belt Co., Chicago, Ill.
NO WASTE—Roving cans. Fibre Specialty Mfg. Co., Kennett Square, Pa.
NOBIND—Marine stuffing boxes. The Upson-Walton Co., Cleveland, Ohio.
NOBLEWEST — Marking and numbering machines, marking dies and steel stamps. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
NOCO BRAND—Leather belting, valves, pump, leather washers, etc. W. S. Nott Co., Minneapolis, Minn.
NOC-OUT—Hose clamp. Wittek Mfg. Co., Chicago, Ill.
NOELTING — Casters. Faultless Caster Corp., Evansville, Ind.
NO-GALL — Pipe compound. Keystone Lubricating Co., Philadelphia, Pa.
NOGALD—Wire. The Youngstown Sheet and Tube Company, Youngstown, Ohio.
NOKORODE—Solder. The M. W. Dunton Co., Providence, R. I.
NOKOROS—Unions. Illinois Malleable Iron Co., Chicago, Ill.
NOLAP—Abrasive sleeves and belts. The Cleveland Container Co., Cleveland, Ohio.
NON-BREAKABLE—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.
NON-GRAN—Bronze. American Non-Gran Bronze Corp., Berwyn, Pa.
NON KINK—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
NON LINK POSITIVE—Lock washers and nut locks. The Positive Lock Washer Co., Newark, N. J.
NON-PULSATING — Deep well duplex water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.
NON-SKID—Screw drivers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
NON-SPARKING—Wrenches. J. H. Williams & Co., New York, N. Y.
NOPAK—Valves. Galland-Henning Manufacturing Co., Milwaukee, Wis.
NONPAREIL — Generator valves. The Lunkenheimer Co., Cincinnati, Ohio.
NORBIDE—Boron carbide abrasive. Norton Co., Worcester, Mass.
NORKA—Automobile radiator hose and sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORKA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
NORTHWIND—Electric desk fans. The Emerson Electric Mfg. Co., St. Louis, Mo.
NORWOOD—Garden and water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORTON—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
NORWICH—Nail and ball pean hammers. David Maydole Tool Corp., Norwich, N. Y.
NOXALL—Lace leather and cut lacings. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NOXALL—Water filters. American Filter Co., Milwaukee, Wis.
NU-AIR—Exhaust fans. The Meier Electric & Machine Co., Indianapolis, Ind.
No. 8372—Brattice cloth. Upson-Walton Co., Cleveland, Ohio.
No. 1854—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
No. 5071—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 9626—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 2098—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
NUGGET—Round leather belting. Graton & Knight Co., Worcester, Mass.
NU-GRIP—Screw drivers and bits. The Irwin Augur Bit Co., Wilmington, Ohio.
NU GRIP—Tinners' snips and shears. J. Wiss & Sons Co., Newark, N. J.
NUCUT—Heller Brothers Co., Newark, N. J.
NUTATE — Telltale flexible staybolts. Flannery Bolt Co., Pittsburgh, Pa.
NUXALL — Boiler flue and tube cleaner. Pacific Chemical Co., Los Angeles, Calif.
NYCORD—Manila rope. Rochester Ropes, Inc., Jamaica, N. Y.

O

O. E.—Expansion bolt shield. Arro Expansion Bolt Co., Marion, Ohio.
O-TITE—Welding and brazing compounds. A & C Laboratories, Ridgefield, N. J.
OIC—Valves. Ohio Injector Co., Wadsworth, Ohio.
O.I.M.—Packing. Home Rubber Co., Trenton, N. J.
O.K.—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
O. K.—Door hangers and hay unloaders. The F. E. Myers & Bro. Co., Ashland, O.
OK—Electric motors, fans, grinders, buffers, etc. Marathon Electric Mfg. Co., Wausau, Wis.
OK JR.—Screw plates and die stocks. Greenfield Tap and Die Corp., Greenfield, Mass.
O. K.—Nail sets, center, prick and drive pin punches. Millers Falls Co., Greenfield, Mass.
OK—Sight Feed lubricators. American Injector Co., Detroit, Mich.
O K—Pipe stocks and dies. Greenfield Tap & Die Corp., Greenfield, Mass.
OK—Steam specialties. Kitts Steam Specialty Co., Inc., Oswego, N. Y.
O. P. B.—Oilless peg bearings. Mechanical Devices Co., Bloomington, Ill.
O. S.—Nut locks. American Nut and Bolt Fastener Co., Pittsburgh, Pa.
OAK — Leather packings. Michigan Leather Packing Co., Detroit, Mich.
OAKEN—Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
OAKWOOD — Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.
OBERG (C. O.) BRAND—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
OBSTITCHED — Stitched canvas belting. The American Belting Companies, Baltimore, Md.
OCTOLE—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
OIL BATH—Power pumps. Dean Brothers Co., Indianapolis, Ind.
OIL PAC—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
OIL PULL—Industrial belting. The Hettrick Mfg. Co., Toledo, Ohio.
OIL-RITE — Pumps and water systems. The Deming Co., Salem, Ohio.
OIL TYPE—Pulley clutches and cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
OILTITE—Sheet packing. Jenkins Bros., New York, N. Y.
OILZUM—Motor oils and greases. The White & Bagley Co., Worcester, Mass.
OIM—(ON ITS MERIT)—Packing. Home Rubber Co., Trenton, N. J.
OKEH—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
OKO BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OKTAGONALS (Corley Oktagonals) — Unions. The Corley Co., Jersey City, N. J.
OLD DUTCH PROCESS — White lead. Sherwin-Williams Co., Cleveland, Ohio.
OLD CROW—Sheet and piston packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
OLD GLORY—Belting. Home Rubber Co., Trenton, N. J.
OLD GOLD—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
OLD HICKORY—Tool handles. Hartwell Brothers, Memphis, Tenn.
OLD HONESTY—Paint. Vita-Var Corp., Newark, N. J.
OLD RELIABLE—Babbitt metal. Murphy Metals Co., Chicago, Ill.
OLD RELIABLE—Steam joint cement. Geo. Callahan & Co., New York, N. Y.
OLD RELIABLE XX—Dredge chain. The McKay Co., Pittsburgh, Pa.
OLD TIMER—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
OLDHAM — Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
OLIVE HILL—Fire clay brick. General Refractories Co., Philadelphia, Pa.
OLOTAN—Rounded leather belting and "V" belt. F. Raniville Co., Grand Rapids, Mich.
OLYMPUS—Gauge locks. Nason Manufacturing Co., New York, N. Y.
ONEGA—Valve tools. Stevens Walden, Inc., Worcester, Mass.
ONEIDA—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
ONEIDA TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
ONYX—Machinery steels. Crucible Steel Co. of America, New York, N. Y.
OPTO-MATIC OILER—Visible lubricators. Trico Fuse Mfg. Co., Milwaukee, Wis.
ORANGEBURG — Underground duct. Johns-Manville, New York, N. Y.
ORGAN—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
ORIGINAL—Belt fasteners. Isaac Jackson Belt Fastener Co., Inc., New York.
ORIGINAL — Expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
ORIGINAL—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
ORIOLE—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
ORIOLE—Round leather belting and lace leather. I. B. Williams & Sons, Dover, N. H.
ORIOLE—Small home garage vises. The Charles Parker Co., Meriden, Conn.
ORO—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
ORVIS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
OSAGE — Belting. Goodall Rubber Co., Philadelphia, Pa.
OSHKOSH—Logging and pole line construction tools, shovels and spoons. Leach Co., Oshkosh, Wis.
OT-STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
OUTINGLAS—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
OVAL FINE WIRE and **SPIRAL**—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
OVALHOLE—Hollow center packing. The Hollow Center Packing Co., Cleveland, Ohio.
OVER-THE-TOP—Belt dressing. Magic Leather Treatment Co., Detroit, Mich.
OVER-WAY—Conveying systems. Richards-Wilcox Mfg. Co., Aurora, Ill.
OVERCOAT — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
OWL—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
OWL—Tool handles. American Handle Co., Jonesboro, Ark.
OWL EYE—Leather loom pickers. Chas. A. Schieren Co., New York, N. Y.
OXHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OXIDIZED CARBON CEMENT—Paint. Vita-Var Corp., Newark, N. J.
OXWELD — Welding and cutting equipment. The Linde Air Products Co., New York, N. Y.
OZARK—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
OZARK—Water filters. E. L. Miller Mfg. Co., Kansas City, Mo.

P

P & B—Industrial paints. The Paraffine Companies, Inc., San Francisco, Calif.
P & B—Insulating tape and compounds. The Ruberoid Co., New York, N. Y.
P.B.H.—Water gauges, cocks, glass protectors, stoking tools, boiler cement, etc. Paul B. Huyette Co., Inc., Philadelphia, Pa.
P&H—Electric overhead traveling cranes, hoists, etc. Harnischfeger Corp., Milwaukee, Wis.
P-K—Screws. Parker-Kalon Corp., New York, N. Y.
P. I. V. GEAR—Variable speed transmissions. Link-Belt Co., Chicago, Ill.
P. L. C.—Lubricants, metal polish, boiler metal treatment, etc. Patterson Lubricating Co., Boston, Mass.
P. O. B.—Paper oilless bearings. Mechanical Devices Co., Bloomington, Ill.

PABCO—Paints, roofings and floor coverings. The Paraffine Companies, San Francisco, Calif.
PACEMAKER — Belting and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PACEMAKER — Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
PACIFIC—Belt and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PACIPIC—First aid equipment. E. D. Bullard Co., San Francisco, Cal.
PACIFIC—Flax tow hose. American Fire Hose Co., Philadelphia, Pa.
PACTITE—Metal shredded packing. Federal Metallic Packing Co., Wakefield, Mass.
PAGET—Water heaters, boiler tube cleaners, etc. Self Cleaning Strainer Co., Chicago, Ill.
PAINT O'MISTER — Portable electric spray units. Simplex Spray Equipment Co., Chicago, Ill.
PAINTERS PRIDE—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio
PALISADE—Hose. New York Belting & Packing Co., Passaic, N. J.
PALLADIUM — Hose. The Mechanical Rubber Co., Passaic, N. J.
PALMETTO—Solid woven cotton belting. Victor Balata & Textile Belting Co., New York, N. Y.
PALMETTO — Steam packing. Greene, Tweed & Co., New York, N. Y.
PALMGREN—Vises, chucks, boring heads and tool holders. Chicago Tool & Engineering Co., Chicago, Ill.
PAN AMERICAN — Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
PANAMA—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PANSAR—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PANTHER—Rubber and friction tapes. The Okonite Co., Passaic, N. J.
PARA—Hose. New York Belting & Packing Co., Passaic, N. J.
PARA FLAX—Packing. New York Belting & Packing Co., Passaic, N. J.
PARABOLIC—Milling cutters. National Twist Drill & Tool Co., Detroit, Mich.
PARADOX — Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
PARAGON — Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
PARAGON—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
PARAGON — Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
PARAGON—Hand elevators. The Storm Manufacturing Co., Newark, N. J.
PARAGON—Spray pumps. The Campbell-Hausfeld Co., Harrison, Ohio.
PARAGON—Tool steel. Crucible Steel Co. of America, New York, N. Y.
PARAGON — Ventilating fans. Bendix Products Corp., South Bend, Ind.
PARAMOUNT—Band saws and knives. J. D. Burrill & Son, Ilion, N. Y.
PARAMOUNT—Hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PARANITE G O P—Oil hose and oil proof composition for use as valve seats, washers, gaskets, etc. The Manhattan Rubber Mfg. Div., of Raybestos-Manhattan, Inc., Passaic, N. J.
PARCO POWDER—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
PARENT STEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
PARKSIDE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PARMELEE—Pipe wrenches. Walworth Co., New York, N. Y.
PAROS—Hand expansion reamers. The Gammons-Holman Co., Manchester, Conn.
PAROCK—Oil-less bearings and hard rubber. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PARONITE—Belting, hose, packing and rings. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PASP—Packing. Home Rubber Co., Trenton, N. J.
PATHFINDER—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.
PATROL — Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
PAUL—Air guns. Wm. E. Pratt Mfg. Co., Joliet, Ill.
PAUL—Pumps, water softeners, etc. Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
PAVING BREAKERS—Concrete drills. Ingersoll-Rand Co., New York, N. Y.
PAWNEE—Belt lacing. California Tanning Co., St. Louis, Mo.
PAWNEE—Steel grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PAXIT—Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
PAXOL—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
PAXTITE — Leather packings. Watson-Stillman Co., Roselle, N. J.
PEASE—Glass body oil cups. W. D. Allen Mfg. Co., Chicago, Ill.
PECK—Carriers (power house conveyors). Link-Belt Co., Chicago, Ill.
PEECO — Steam separators and utility strainers. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PEERLESS—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PEERLESS—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
PEERLESS CHROME—Belt lacing. California Tanning Co., St. Louis, Mo.
PEERLESS—Friction clutches and molding slip flasks. T. B. Wood's Sons Co., Chambersburg, Pa.
PEERLESS—Furnace cement. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
PEERLESS—Gasoline and oily waste cans. Miller Peerless Manufacturing Co., Chicago, Ill.
PEERLESS — Hand screws. Adjustable Clamp Co., Chicago, Ill.
PEERLESS — Reamers. The Cleveland Twist Drill Co., Cleveland, Ohio.
PEERLESS—Spur gear chain hoists. The Harrington Co., Philadelphia, Pa.
PEERLESS — Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
PEERLESS—Tool grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
PEERLESS—Tool steel. Heller Bros. Co., Newark, N. J.
PEERLESS A—Hot work steel. Crucible Steel Co. of America, New York, N. Y.
PEIRCE—Pole line hardware specialties. Hubbard & Co., Pittsburgh, Pa.
PENFLEX—Flexible metallic hose, barrel fillers, etc. Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
PENLO—Engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PENN—Vises. Hollands Mfg. Co., Erie, Pa.
PENN KELLER—Work gloves. Keller Glove Mfg. Co., Plumsteadville, Pa.
PENN-MOTOR PUMPS—Centrifugal pumping units. Pennsylvania Pump & Compressor Co., Easton, Pa.
PENNIE—(KENNEDY-PENNIE) — Back water valves. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
PENNTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
PENTEX—Firebrick. Quigley Co., New York, N. Y.
PEORIA—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PEQUOIT—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
PER FEC HOLE—Grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
PERFECT — Axes. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
PERFECT—Boiler flue cleaners. L. G. Dolittle, Binghamton, N. Y.
PERFECT — Emery wheel dressers and wrenches. Wm. E. Pratt Mfg. Co., Chicago, Ill.
PERFECT—Gauges. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PERFECT—Oil retainers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
PERFECT—Oil seals. The Chicago Rawhide Mfg. Co., Chicago, Ill.
PERFECT—Tool handles. O. P. Link Handle Co., Salem, Ind.
PERFECT—Wire cloth and wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
PERFECT BALANCE—Wire and fiber rotary sections and wire wheels. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
PERFECT CLINCHING—Hose couplings and menders. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PERFECT EXPANSION—Packing. New York Belting & Packing Co., Passaic, N. J.
PERFECT HANDLE—Monkey wrenches and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
PERFECT SEAL—Gasket cement. Ideal Commutator Dresser Co., Sycamore, Ill.
PERFECTED—Piano and wire, etc. American Steel & Wire Co., Chicago, Ill.
PERFECTED Z E—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
PERFECTION—Belting and suction hose and dredging sleeves. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PERFECTION — Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
PERFECTION—Brass valves, globe "Y" and gage cocks. Central Valve Co., Chicago, Ill.
PERFECTION—Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
PERFECTION—Cross-cut saws. E. C. Atkins and Co., Indianapolis, Ind.
PERFECTION—Engineers' oilers. Handlan-Buck Mfg. Co., St. Louis, Mo.
PERFECTION—Flax pump packing. Advance Packing & Supply Co., Chicago, Ill.
PERFECTION—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
PERFECTION—Glass cutting boards. The Lufkin Rule Co., Saginaw, Mich.
PERFECTION—Leather belting, dressing and cement. Bonner & Barnewall, Inc., New York, N. Y.
PERFECTION—Pump connections. Stevens Walden, Inc., Worcester, Mass.
PERFECTION—Shears. The W. H. Compton Shear Co., Newark, N. J.
PERFECTION—Steel bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
PERFECTION — Steel wool. Albert E. Rinn Co., Allentown, Pa.
PERFECTION — Striking tool handles. Turner, Day & Woolworth Handle Co., Louisville, Ky.
PERFECTION—Water and jet wheels. Craig Ridgway & Son Co., Coatesville, Pa.
PERFECTION—Wire rope. The Upson-Walton Co., Cleveland, Ohio.
PERMAC—Jointing compound. Cling-Surface Co., Buffalo, N. Y.
PERMALOCK—Gasoline hose couplings. The B. F. Goodrich Co., Akron, Ohio.
PERMANENCE IN STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
PERMANENT PRODUCTS — Brass and bronze bolts, nuts, screws, etc. The Everitt Co., Boston, Mass.
PERMANITE — Asbestos sheet packing. Ferodo & Asbestos, Inc., New Brunswick, N. J.
PERMITE—Aluminum paint, bronze bars, bushings, etc. Aluminum Industries, Inc., Cincinnati, Ohio.
PERRY — Scrapers. The Sidney Steel Scraper Co., Sidney, Ohio.
PET—Lubricators. American Injector Co., Detroit, Mich.
PETROL—Conveyor belt. Victor Balata & Textile Belting Co., New York, N. Y.
PETROL, READY TITAN GIANT—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
PEXTO—Tools, hardware and sheet metal working machinery. The Peck, Stow & Wilcox Co., Southington, Conn.
PHI METAL—Babbitt metal. Glacier Metal Co., Richmond, Va.
PHILADELPHIA—Oil field cordage and drilling cables. The Edwin H. Fitler Co., Philadelphia, Pa.
PHOENIX—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
PHOENIX—Twine, etc. Samson Cordage Works, Boston, Mass.
PHOMENE—Fire extinguishers and engines. Pyrene Manufacturing Co., Newark, N. J.
PHONEYE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
PIG NOSE—Knives for hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
PIGSKIN—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
PILOT—Sight feed oil cups. Essex Brass Corp., Detroit, Mich.
PILOT—Valves. Triumph Brass Co., Columbus, Ohio.
PIONEER—Flint paper. Wausau Abrasives Co. Division, Minnesota Mining & Manufacturing Co., St. Paul, Minn.
PIONEER — Leather belting. Foss & Bump, Inc., Springfield, Mass.
PIONEER—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
PIONEER — Steel hangers. Standard Pressed Steel Co., Jenkintown, Pa.
PIPE MASTER—Pipe wrench. The Erie Tool Works, Erie, Pa.
PIQUA—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
PISTOL—American style files. Grobet File Corp. of America, New York, N. Y.
PITTSBURGH BEVEL—Steel letters and figures (marking). Jas. H. Matthews & Co., Pittsburgh, Pa.
PLANER—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PLANER BRAND—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PLANET—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
PLANETAINER—Road drags. The General Wheelbarrow Co., Cleveland, Ohio.
PLASGON—Plastic and gasket cement. The Wilbur & Williams Co., Boston, Mass.
PLASTERCOTE — Waterproofing. Vita-Var Corp., Newark, N. J.
PLASTEX—Paint. The Reardon Co., St. Louis, Mo.

PLASTIC K-N—Plastic chrome ore refractory. E. J. Lavino & Co., Philadelphia, Pa.
PLASTIC THERMOLITH BATCH—High temperature ramming mixture. Harbison-Walker Refractories Co., Pittsburgh, Pa.
PLASTISEAL—Heat resistant and oil proof expanding joint sealing compound. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
PLASTOPAC—Rod packing. New York Belting & Packing Co., Passaic, N. J.
PLATE AA—Fire hose cabinet. Wirt & Knox Mfg. Co., Philadelphia, Pa.
PLUMTITE—Graphite paste. Superior Flake Graphite Co., Chicago, Ill.
PLUS—Type steel chains. Link-Belt Co., Chicago, Ill.
PLUVIOUS—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PLYMOUTH—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
POINTCUT—Pruner. H. K. Porter, Inc., Everett, Mass.
POLAR—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
POLAR — Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
POMPTON—Straight carbon tool bits. Ludlum Steel Co., Watervliet, N. Y.
PONY—Clamp fixtures, wood and steel bar clamps and miniature "C" clamps. Adjustable Clamp Co., Chicago, Ill.
PONY—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
PORT-AIR—Exhaust fan. Victor Electric Products, Inc., Cincinnati, Ohio.
PORTAGE—Belting, hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PORTFLEX—Flexible shaft equipment. The Dallett Co., Philadelphia, Pa.
PORTO-POWER — Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
POSITIVE—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
POSITIVE TYPE "D"—Spring washers, nut locks. The Positive Lock Washer Co., Newark, N. J.
POTOMAR — Shafts. Cumberland Steel Co., Cumberland, Md.
POWDER-PACKED — Renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
POWER—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
POWER BOY—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER BOY—Portable pipe threading machine. Oster-Williams, Cleveland, O.
POWER HOE—Drag scraper. Link-Belt Co., Chicago, Ill.
POWER KING—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER KING—Portable electric hand saws and drills. Portable Power Tool Corp., Warsaw, Ind.
POWER KING — Tranmission belting. Goodall Rubber Co., Philadelphia, Pa.
POWER TWIST—Waste line cleaners. The Standard Appliance Corp., Dayton, Ohio.
POWERHOLD — Leather belting. J. E. Rhoads & Son, Philadelphia, Pa.
PRACTICAL—Force feed lubricators. McCullough Manufacturing Co., Minneapolis, Minn.
PRACTICAL — Jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
PRATT—Box car loaders. Link-Belt Co., Chicago, Ill.
PRATT & CADY—Valves and cocks. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
PRECISION—Balancing machine. Gisholt Machine Co., Madison, Wis.
PRECISION—Band saw setters. J. D. Burrill & Son, Ilion, N. Y.
PRECISION — Frictionless live centers. The J. C. Glenzer Co., Detroit, Mich.
PRECISION GROUND—Cross-cut saws. Henry Disston & Sons, Inc., Philadelphia.
PREMIER — Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
PREMIER—Gas engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PREMIER—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PREMIER—Welding wire. American Steel & Wire Co., Chicago, Ill.
PREMIER-ATLAS—Pieced buffs. Hanson-Van Winkle-Munning Co., Matawan, N. J.
PRENTICE—Lathes. Reed-Prentice Corp., Worcester, Mass.
PRESSTICO — Asphalt paints, cements, etc. Presstite Engineering Co., St. Louis, Mo.
PRESSURE PROOF — Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.
PRESTO—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
PRESTO — Spray painting and finishing equipment. Metal Specialties Mfg. Co., Chicago, Ill.
PREST-O-LITE—Soldering, brazing and heating equipment, acetylene and flood lights. The Linde Air Products Co., New York, N. Y.
PREST-O-WELD — Welding and cutting equipment. The Linde Air Products Co., New York, N. Y.
PRICE—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
PRIMA — Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PRIMO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
PRIMUS—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PRO-OIL (RUST-PRUF)—Primer and production undercoats. Menaugh & Co., Chicago, Ill.
PROBESTOS — Serrated solid metal gasket with asbestos cord insert. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
PRODUCTIMETERS—Counting and measuring machines. Durant Mfg. Co., Milwaukee, Wis.
PRODUCTION—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
PROFESSIONAL—Window brushes and cleaners. The Osborn Manufacturing Co., Cleveland, Ohio.
PROMAL—Chains and buckets. Link-Belt Co., Chicago, Ill.
PRONTO — Drain-pipe solvent. Pacific Chemical Co., Los Angeles, Calif.
PROTEC-STOC—Heat resisting paint. The National Roofing Co., Tonawanda, N. Y.
PROTECTED SEAT—Hydraulic operating valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
PROTECTION — Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit.
PROTECT-O—Electric lamp guards. McGill Mfg. Co., Valparaiso, Ind.
PROTEX ANTI-FREEZE — Fire extinguishers. Knight & Thomas, Inc., Boston. Mass.
PROTEXU—Rubber aprons.. Gross Rubber Co., Sharon, Pa.
PRYZOAK — Leather belting. Graton & Knight Co., Worcester, Mass.
PUL-LIFT—Hoists. Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.
PULL-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PURAIR—Helmets. The W. W. Sly Manufacturing Co., Cleveland, Ohio.
PURITAN—Gasoline hose and hydraulic packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PURITAN — Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
PUROX—Welding and cutting equipment. The Linde Air Products Co., New York.
PUSH-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PYRALOID—Soft hammers. The Forsberg Mfg. Co., Bridgeport, Conn.
PYRAMID—Gears. Boston Gear Works, Inc., North Quincy, Mass.
PYRAMID—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PYRATHERM—Stack safety control. The Mercoid Corp., Chicago, Ill.
PYRO-MORTAR—Dry refractory cement. Quigley Co., Inc., New York, N. Y.
PYROID—Compressed sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
PYTHON—Belt and mill fire hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron. Ohio.

Q

Q A — Pipe rests. Armstrong Mfg. Co., Bridgeport, Conn.
Q-CHROMASTIC—Plastic refractory surface mortar. Quigley Co., Inc., New York, N. Y.
Q-CHROME—Refractory cement. Quigley Co., Inc., New York, N. Y.
Q-SEAL—Joint sealing compound. Quigley Co., Inc., New York, N. Y.
QUAKER METAL — Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
QUALITY LINE—Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
QUALITY SEAL — Brooms. The Southwestern Broom Mfg. Co., Evansville, Ind.
QUEEN—Fire extinguishers, safety ladder shoes, oily waste cans, hose racks, etc. Harker Mfg. Co., Cincinnati, Ohio.
QUEEN—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ohio.
QUEEN ANNE—Burners. Scovill Mfg. Co., Waterbury, Conn.
QUEEN CITY — Adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
QUEEN CITY—Foot squaring sheet metal shears. Niagara Machine & Tool Works, Buffalo, N. Y.
QUEER CREEK—Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
QUICK—Bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
QUICK AS WINK—Hose couplings, valves, polishing wheels, etc. C. B. Hunt & Son, Salem, Ohio.
QUICK-CHANGE—Water gauges. Wright-Austin Co., Detroit, Mich.
QUICK DRY — Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
QUICK-SET—Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
QUIK-FLO—Bronze quick opening gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
QUIK-PACH—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.

R

RC—Type flexible coupling. Link-Belt Co., Chicago, Ill.
R & E—Furnace cement and insulating block. Refractory & Engineering Corp., New York, N. Y.
R & E No. 3000—Refractory cement. Refractory & Engineering Corp., New York, N. Y.
R & E INSUL-PIL—Insulating wool. Refractory & Engineering Corp., New York, N. Y.
R & E MOLDIT—Refractory cement. Refractory & Engineering Corp., New York, N. Y.
R & E STIC-TITE—Insulating cement, Refractory & Engineering Corp., New York, N. Y.
RH—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. I. RED—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RN—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. R. REGRINDING—Railroad valve. The Lunkenheimer Co., Cincinnati, Ohio.
R-S—Furnaces, burners, heaters, controllers, blast gates, etc. R. S. Products Corp., Philadelphia, Pa.
R-3-P—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RABBIT—Swiss files. Grobet File Corp. of America, New York, N. Y.
RADIO—Belting and hose. Home Rubber Co., Trenton, N. J.
RADIUM A and B—Bearing metal. Hewitt Metal Corp., Detroit, Mich.
RAHTAN STEAMPROOF—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
RAIL HUGGER—Trolley chain hoist. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.
RAILROAD SPECIAL—Screw wrench. J. H. Williams & Co., New York, N. Y.
RAINBOW—Wire belt lacing. Manufacturers' Belt Hook Co., Chicago, Ill.
RAINBOW STRAND—Wire rope. Rochester Ropes, Inc., Jamaica, N. Y.
RAINBOY—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
RAINIER—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, O.
RAJAH—Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
RAJAH—Packings and gaskets. Johns-Manville, New York, N. Y.
RAJAH CORUNDUM — Grinding wheels, oil stones, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
RAMAPO—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
RAMSEY—Hand and power winches. United Machinery Co., Portland, Ore.
RANAREX—Indicators and recorders. The Permutit Co., New York, N. Y.
RANGER—Push brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RAMOL—Belt cleaner. F. Raniville Co., Grand Rapids, Mich.
RANGER SPECIAL — Linen forest fire hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
RANIWELD — Belting cement. F. Raniville Co., Grand Rapids, Mich.
RAPID—Engraving machinery. Desmond-Stephan Mfg. Co., Urbana, Ohio.
RAPID—Single strand twisted jute packing. American Manufacturing Co., Brooklyn, N. Y.
RAPID TRANSIT—Vises. Prentiss Vise Co., New York, N. Y.
RAPIDUCTION—Pipe and bolt threading machines. Oster Williams, Cleveland, O.
RATTLER — Hose. Home Rubber Co., Trenton, N. J.
RAVEN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
RAWHIDE—Linen lariat rope. Rochester Ropes, Inc., Jamaica, N. Y.
RAWL-ANCHORS—Masonry bolt anchor. The Rawlplug Co., Inc., New York, N. Y.
RAWL-DRILLS — Masonry drills. The Rawlplug Co., Inc., New York, N. Y.

UMI

RAWL-DRIVES—Expansion bolts. The Rawlplug Co., Inc., New York, N. Y.
RAWLPLUGS—Fibre screw anchors. The Rawlplug Co., Inc., New York, N. Y.
READING—Railroad specialties. American Chain Co., Inc., Bridgeport, Conn.
READING BRAND—Brass and copper pipe nipples. H. W. Hunt Co., Reading, Mass.
READY—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
REALOCK—Grease cups for locomotives. Flannery Bolt Co., Pittsburgh, Pa.
REAMBITE—Adjustable reamers. Greenfield Tap & Die Corp., Greenfield, Mass.
REARWIN—Die and filing machine. Oliver Machinery Co., Grand Rapids, Mich.
REARWIN—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
RECORD—Babbitt metal. Federated Metals Corp., New York, N. Y.
RED ARROW—High speed steel hack saw blades. W. O. Barnes Co., Inc., Detroit.
RED ARROW—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED BANDS—Motors, etc. Howell Electric Motors Co., Howell, Mich.
RED CAP—Brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
RED CAP—Metal polish, etc. C. M. Kimball Co., Everett, Mass.
RED CAP—Thermostats. Bastian-Morley Co., LaPorte, Ind.
RED CENTER—Circular saws. Simonds Saw and Steel Co., Fitchburg, Mass.
RED CROSS—Belt dressing. Bonner & Barnewall, Inc., New York, N. Y.
RED DRAGON — Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
RED-E-HALL — Portable power pipe threader. American Die & Tool Co., Inc., Reading, Pa.
RED EDGE—Shovels, scoops, spades and picks. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED END—Hack saws. Simonds Saw and Steel Co., Fitchburg, Mass.
RED FACE — Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED FLASK—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
RED GIANT—Pneumatic drills. Chicago Pneumatic Tool Co., New York, N. Y.
RED GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
RED HEAD—Crystolon abrasive file. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
RED HEAD-GOLD BAND — Bale ties. Northwestern Barb Wire Co., Sterling, Ill.
RED HEAD—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED-HED—Oil well chain. Link-Belt Co., Chicago, Ill.
RED JUNIOR—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED LETTER — Soldering flux (liquid). The Ruby Chemical Co., Columbus, Ohio.
RED LINE—Differential hoists. Clinton E. Hobbs Co., Boston, Mass.
RED METAL—Sash chain. The Smith & Page Mfg. Co., Bridgeport, Conn.
RED NUT—Pipe wrenches. Henry & Allen, Inc., Auburn, N. Y.
RED RIPPERS—Truing tools. The Ross Mfg. Co., Cleveland, Ohio.
RED ROSE—Packing. Home Rubber Co., Trenton, N. J.
RED SEAL—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
RED SHIELD—High speed drills. Standard Tool Co., Cleveland, Ohio.
RED SHIELD—Transmission belting and air hose. The Mechanical Rubber Co., Passaic, N. J.
RED SOCKET—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED STREAK — Hacksaws, machine knives, tool holder bits, flat ground stock. Simonds Saw and Steel Co., Fitchburg, Mass.
RED STREAK—Portable electric tools. Wappat, Inc., Pittsburgh, Pa.
RED TAG—Fence and gates. Cyclone Fence Co., Waukegan, Ill.
RED TANG—File. Simonds Saw and Steel Co., Fitchburg, Mass.
RED TIP—Rods. Mueller Brass Co., Port Huron, Mich.
RED TOP—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
REDDCOM—Linen hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
REDFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDISC—Cement. Charles H. Besly & Co., Chicago, Ill.
REDRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REELITE—Automatic take-up reels for electric cable. Appleton Electric Co., Chicago, Ill.
REGAL—Engine lathe. R. K. Le Blond Machine Tool Co., Cincinnati, Ohio.
REGENT—Asbestos rod packing. The Darcoid Co., Inc., New York, N. Y.
REGENT — Machinery steels. Crucible Steel Co. of America, New York, N. Y.
REGO—Welding equipment. Bastian-Blessing Co., Chicago, Ill.
REGOROD—Welding rods, fluxes and electrodes. The Bastian-Blessing Co., Chicago, Ill.
REHANCE—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
REID—Drill chucks. R. H. Brown & Co., New Haven, Conn.
REILLY — Steam pumps. Vogt Brothers Mfg. Co., Louisville, Ky.
REK-TANG—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
RELIABLE—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
RELIABLE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
RELIABLE (The)—Pop safety valves. Consolidated Brass Co., Detroit, Mich.
RELIABLE—Ratchet grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
RELIABLE — Tool handles. Hartwell Brothers, Memphis, Tenn.
RELIANCE—Bushings and bearings. Metal Saw & Machine Co., Inc., Springfield, Mass.
RELIANCE—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
RELIANCE—Drills. New Process Twist Drill Co., Taunton, Mass.
RELIANCE—Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.
RELIANCE—Leather belting, dressing, etc. Chicago Belting Co., Chicago, Ill.
RELIANCE — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.
RELIANCE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
RELIANCE — Shears, etc. The W. H. Compton Shear Co., Newark, N. J.
RELIANCE —Spring washers, woodruff and machine keys, taper pins, etc. Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, Ohio.
REMCO—Individual motor drives, automotive replacement parts, valves, pump shafts, etc. Manley Products Corp., York, Pa.
REMUV-ALL—Wire brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
RENEWO—Bronze, globe, angle, cross, check and blow-off valves and gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
RENOLD-BOSTON — Silent and roller chain drives. Boston Gear Works, Inc., North Quincy, Mass.
RENSHAW—Ratchet drills. Pratt & Whitney Co., Hartford, Conn.
REPAIR-ALL—Solder. Gardiner Metal Co., Chicago, Ill.
REPLATE—Brass valves, globe, "Y" and gage cocks. Central Valve Co., Chicago.
RESCUE—Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
RESCUE—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
RESEARCH — Leather belting and belt dressing. Graton & Knight Co., Worcester, Mass.
RESISTAL—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RESISTAL—Stainless steels. Crucible Steel Co. of America, New York, N. Y.
RESISTO—Concrete floor hardener. Pittsburgh Crushed Steel Co., Pittsburg, Pa.
RESISTOR—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
RESTLESS-STEEL—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
RETAN—Waterproof leather belting. The Taylor Belting Co., Indianapolis, Ind.
RETAN SEA LION—Leather belting. Chicago Belting Co., Chicago, Ill.
RETSUL—Cleaner, polish, etc. Minnesota Mining & Mfg. Co., St. Paul, Minn.
REVERSO—Bronze nickel seat valves. The D. T. Williams Valve Co., Cincinnati, O.
REVOLVING HEAD—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
"REX AA" and "AAA"—High speed steel. Crucible Steel Co. of America, New York.
REX—Aluminum oxide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
REX — Asbestos packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
REX—Chain, conveyors, etc. Chain Belt Co., Milwaukee, Wis.
REX—Mixers, pavers, pumps, saw rigs, elevators, conveyors, chains and transmission equipment. Chain Belt Co., Milwaukee, Wis.
REX—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
REX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
REX-SOPERVAN—High speed steel. Crucible Steel Co., of America, New York.
REX-TAN — Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
REXALL STORE SERVICE—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
REXITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
RHENAG—Gauge glasses. Chicago Engineer Supply Co., Chicago, Ill.
RHINO—Truck casters. The Bassick Co., Bridgeport, Conn.
RHODES — Metallic packing. Rhopac Products Corp., Chicago, Ill.
RIALTO — Elevator buckets. Link-Belt Co., Chicago, Ill.
RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RICE—Flue brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RICE'S FLOW-ON—Interior white paint. U. S. Gutta Percha Paint Co., Providence, R. I.
RICHARDS—Oilers. Atlas-Ansonia Co., New Haven, Conn.
RICHARDSON—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
RICHARDSON ELASTIC—Shellac wheels. Waltham Grinding Wheel Co., Waltham, Mass.
RICHTAL—Track drills, car movers and tie boring machines. Tallman Manufacturing Co., Shelbyville, Ill.
RICK — Cocks, valves, fittings, etc. The Rickersberg Brass Co., Cleveland, Ohio.
RIDCOIL—Threading oil. The Ridge Tool Co., Elyria, Ohio.
RIDGID—Wrenches, cutters, vises, vise stands, etc. The Ridge Tool Co., Elyria, Ohio.
RIDGIDMIL—Milling machines. Sundstrand Machine Tool Co., Rockford, Ill.
RIDORAY—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIDORISK—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIDODUST—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIEHL—Wire wheel sections. The Osborn Manufacturing Co., Cleveland, Ohio.
RIEHL TRIUMPH—Tampico wheels. The Osborn Manufacturing Co., Cleveland, O.
RIFCO—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RIGIDBACK — Serrated blade cutters. Cowles Tool Co., Cleveland, Ohio.
RIGIDMILLS—Milling machines. Sundstrand Machine Tool Co., Rockford, Ill.
RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
RING TRUE—Babbit. Michigan Smelting & Refining Co., Detroit, Mich.
RINO—Waterproof leather belting and cement. Bonner & Barnewall, Inc., New York, N. Y.
RISERTHERM—Boiler control. The Mercoid Corp., Chicago, Ill.
RITE-SPEED—Floor grinders. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
RITEX—Chrome brick. General Refractories Co., Philadelphia, Pa.
RITEX—Magnesite brick. General Refractories Co., Philadelphia, Pa.
RIVAL—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
RIVETLESS — Chains. Link-Belt Co., Chicago, Ill.
ROADBUILDERS—Hose. Goodall Rubber Co., Philadelphia, Pa.
ROBERTS—Electric hammers, etc. Electric Hammer Syndicate, Louisville, Ky.
ROBIN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
ROBINBRAND — Wiping and polishing cloths and cheese cloth. D. Robinson & Sons, Detroit, Mich.
ROBINSON—Braiding machines. Andrew C. Campbell, Division of American Chain Co., Inc., Bridgeport, Conn.
ROC OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
ROCHESTER — Force feed lubricators. Greene, Tweed & Co., New York, N. Y.
ROCK CORK — Cold insulation. Johns-Manville, New York, N. Y.
ROCK DRILL—Water valves. The Lunkenheimer Co., Cincinnati, Ohio.
ROCKER JOINT — Transmission chain. Morse Chain Co., Ithaca, N. Y.
ROCKFORD — Drilling and boring machines. Rockford Drilling Machine Co., Rockford, Ill.
RODTITE—Asbestos metallic packing. The Darcoid Co., Inc., New York, N. Y.
ROL-EZY—Truck casters and wheels. Currie Mfg. Co., Chicago, Ill.
ROLLER CUSHION—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.

ROLLER-UNDERDRY — Gates. R. H. Beaumont Co., Philadelphia, Pa.
ROLLERINE—Bearing grease. Royersford Foundry & Machine Co., Royersford, Pa.
ROLLERPLANE—Speed reducer. Swayne-Robinson & Co., Richmond, Ind.
ROME—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
ROOF-SHIELD — Roof cement. Ensign Products Co., Cleveland, Ohio.
ROPE & CORDAGE FILLER—Rope drive dressing. F. Raniville Co., Grand Rapids, Mich.
ROSS—Hydrant thawing device. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROTA-ROLL — Pump. Sundstrand Machine Tool Co., Rockford, Ill.
ROTOR—Brick cleaning machines. C. B. Hunt & Son, Salem, Ohio.
ROTOR LIFT—Vertical screw elevator. Link-Belt Co., Chicago, Ill.
ROTURBO—Pumps. Manistee Iron Works Co., Manistee, Mich.
ROUGHRIDER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROUND — Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
ROYAL—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL — Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
ROYAL—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ROYAL—Hardening powder. Anti-Borax Compound Co., Fort Wayne, Ind.
ROYAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
ROYAL — Packing. Home Rubber Co., Trenton, N. J.
ROYAL — Plumbers' oakum. American Manufacturing Co., Brooklyn, N. Y.
ROYAL BOOSTER — Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL EXTRA—Leather belting. Chas. A. Schieren Co., New York, N. Y.
ROYAL MONARCH — Leather belting. Couse & Bolten, Inc., Newark, N. J.
ROYAL OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
ROYAL RED—Transmission belting and garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
ROYAL SUPERIOR—Automatic water heaters. Bastian-Morley Co., Laporte, Ind.
ROYAL WORCESTER—Fire and track brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
ROYAL WORCESTER—Lace leather, belt dressing, etc. Graton & Knight Co., Worcester, Mass.
RUBBER COATING—Belt treatment. F. Raniville Co., Grand Rapids, Mich.
RUBBER-ITE—Stitched canvas and solid woven cotton belting. Mcilroy Belting Works, Hammond, Ind.
RUBRO — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
RUBY—Oils and greases. D. A. Stuart Oil Co., Chicago, Ill.
RUBY—Gasket packing. New York Belting & Packing Co., Passaic, N. J.
RUBY-RUB—Metal polish. Hinds and Coon Co., Boston, Mass.
RUBYFLUID—Soldering flux, acid and resin core solder. The Ruby Chemical Co., Columbus, Ohio.
RUF-NEK—Oil well pumping unit. Link-Belt Co., Chicago, Ill.
RUGGEDWEAR RESURFACER — Patching cement. Flexrock Co., Philadelphia, Pa.
RUN RITE—Casters. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
RURAL—Lubricators. Essex Brass Corp., Detroit, Mich.
RUSCO—Brake lining, clutch facings and belting. Russell Manufacturing Co., Middletown, Conn.
RUSGO—Rust solvent. Babbitt Steam Specialty Co., New Bedford, Mass.
RUSSO—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
RUST CUTTER—Penetrating oil. Whiting Leather & Belting Co., Long Island City, N. Y.
RUST PROOF BESSEMER—Paint. H. Rinald Co., Philadelphia, Pa.
RUST-PRUF—Menaugh & Co., Inc., Chicago, Ill.
RUSTSOLVO—Penetrating oil. Rust Products Co., Chicago, Ill.
RUSTVOID—Rust preventive. Whiting Leather & Belting Co., Long Island City, N. Y.
RYER—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
RYERSON—Hose reels. W. D. Allen Mfg. Co., Chicago, Ill.

S

S (in diamond)—Rope, yarns, etc. The Edwin H. Fitler Co., Philadelphia, Pa.
S-A—Anti-acid valves. The Lunkenheimer Co., Cincinnati, Ohio.
S. B. BOROLON—Grinding wheels. Abrasives Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
S & C—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
S-C—Power plant equipment. The Swartwout Co., Cleveland, Ohio.
S. C. & H. — Industrial furnaces. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
S-F—Vacuum valves. Efficiency Engineering Co., Boston, Mass.
SF—Torches, regulators, hose, goggles, helmets, rod and welding accessories. Sight Feed Generator Co., Richmond, Ind.
S & H—Tools. Crescent Tool Co., Jamestown, N. Y.
S. & S.—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
SS-PLUS—Chains. Link-Belt Co., Chicago, Ill.
S&S—Friction clutches. A. L. Schultz & Sons, Chicago, Ill.
SSS—Hose, belting, boots, etc. Goodall Rubber Co., Philadelphia, Pa.
S-V — Electrically driven oxy-acetylene cutting machines. Jos. C. Paulus & Co., Philadelphia, Pa.
SW — Heaters and grease extractors. Standard Water Systems Co. of New Jersey, Hampton, N. J.
SABECO—Bushings, bearings, etc. Fredericksen Co., Saginaw, Mich.
SABRE—Leather belting. McCauley Belting Co., Chicago, Ill.
SACHEM—Sash cord. Samson Cordage Works, Boston, Mass.
SACO—Cotter pins. F. P. Smith & Co., Sharon Hill, Pa.
SACON—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SAFE-T-BOND—Synthetic resin wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
SAFE-T-HEAD — Pins and rivets for chains. Link-Belt Co., Chicago, Ill.
SAFETOP—Fire hydrants. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
SAFETY—Ash and oily waste cans, etc. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAFETY PLUS—Socket set and head cap screws, stripper bolts, socket wrenches, etc. The Chicago Screw Co., Chicago, Ill.
SAFSTICK—Bar belt dressing. Beltonic Products Co., Chicago, Ill.
SAFTY SAW—Portable sawing machines. D. W. Onan & Sons, Minneapolis, Minn.
SAGAMORE—Belt cement. Narragansett Belting Co., Providence, R. I.
SAGAMORE — Belting. Hewitt Rubber Corp., Buffalo, N. Y.
ST. LOUIS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
ST. LOUIS—Grinders and polishing machines. Cutter Machine Co., St. Louis, Mo.
SAIRSET—High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
SAL BRICK—Solid sal-ammoniac. American Solder & Flux Co., Philadelphia, Pa.
SALEM—Elevator buckets. Link-Belt Co., Chicago, Ill.
SAMPSON—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
SAMPSON—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
SAMPSON — Leather belting. McLeod Leather & Belting Co., Greensboro, N. C.
SAMSON—Car movers. Rowell Mfg. Co., Appleton, Wis.
SAMSON—Coil and side chain. The Chain Products Co., Cleveland, Ohio.
SAMSON — Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
SAMSON—Steel shot. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
SAMSON (HAIRON)—Textile leathers and round belting. D. P. Brown & Co., Philadelphia, Pa.
SAMSON—Wire brushes. Albert E. Rinn Co., Allentown, Pa.
SAMSON STEEL SHOT—Steel grit and shot. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
SANCO BRAND—Wiping and polishing material. Sanitary Washed Wiper Co., Indianapolis, Ind.
SANDERSON—Carbon tool steels. Crucible Steel Co. of America, New York.
SANDOW—Belting, hose and packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SANFORD—Trowels, putty knives, scrapers, etc. Atlas-Ansonia Co., New Haven, Conn.
SANI SNAKE—Plumbers tools, closet augers and pipe cleaners. Stow Manufacturing Co., Binghamton, N. Y.
SANITAL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
SARVA—Acid-resisting paint. American Asphalt Paint Co., Chicago, Ill.
SATURN—Belting. Hewitt Rubber Corp., Buffalo, N. Y.
SAUER EISEN — Caulking compound. Technical Products Co., Pittsburgh, Pa.
SAVAL—Funnels and measures. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAVE MET—Dross reducer. Federated Metals Corp., New York, N. Y.
SAW MASTER—Portable electric combination woodworking machines. Master Woodworker Mfg. Co., Detroit, Mich.
SAWMILL SPECIAL—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SAXON—Alligator type wrenches. The Kilborn and Bishop Co., New Haven, Conn.
SAXON—Hose. Goodall Rubber Co., Philadelphia, Pa.
SCHAEFER BYPASS—Traps, reducing temperature control valves, pump governors and regulators, etc. H. Belfield Co., Philadelphia, Pa.
SCHENCK TYPE — Elevator buckets. Link-Belt Co., Chicago, Ill.
SCHICK—Paper balers. The Micro Corp., Bettendorf, Iowa.
SCHIMMEL—Sanding machines. F. W. Winter & Co., Faribault, Minn.
SCIOTA—Flax packing and spray hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SCIOTO—Wheelbarrows and drag scrapers. The Case Crane & Kilbourne Jacobs Co., Columbus, Ohio.
SCOTCH—Masking tape. Minnesota Mining & Mfg. Co., St. Paul, Minn.
SCOUREE—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
SCOUT L-7—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
SCREW SHOOTER — Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SCREWNAILS — Hardened screw nails. Parker-Kalon Corp., New York, N. Y.
SCRIVON — Leather belting. Keystone Belting Co., Philadelphia, Pa.
SCRUINS—Screw anchors. Star Expansion Bolt Co., New York, N. Y.
SCULLY RUGGLES PERFECTION — Valve guide cleaners. Scully Steel & Iron Co., Chicago, Ill.
SEA BEE—Waterproof leather belting. Couse & Bolten, Inc., Newark, N. J.
SEA-LECT—Waterproof belting. Keystone Belting Co., Philadelphia, Pa.
SEA LION—Leather belting, cement and neat's foot. Chicago Belting Co., Chicago, Ill.
SEA RING—Packings and gaskets. Johns-Manville, New York, N. Y.
SEACO—Tool, drill and die steels. Stulz-Sickles Co., Newark, N. J.
SEADER—Injectors, ejectors and valves. The Randle Machinery Co., Cincinnati.
SEAL ROCK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SEALLAC—Gasket cement, boiler graphite, etc. Technical Products Co., Pittsburgh, Pa.
SEARIGHT—Mechanics' shears. Bartlett Manufacturing Co., Detroit, Mich.
SEA-TREATED—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
SEAT OF PRODUCTION (THE)—Factory chairs and stools. Royal Metal Mfg. Co., Chicago, Ill.
SEBCO—Expansion anchors and bolts, drills, nails, toggles, etc. Star Expansion Bolt Co., New York, N. Y.
SECATOR—Electrically driven oxy-acetylene cutting machines. Joseph C. Paulus & Co., Philadelphia, Pa.
SECRET SERVICE—Padlocks. Master Lock Co., Milwaukee, Wis.
SECTIONAL FLIGHT—Spiral screw conveyors. Link-Belt Co., Chicago, Ill.
SECURITY—Ball joints. The Chicago Screw Co., Chicago, Ill.
SECURO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
SEIGELITE — Packings and gaskets. Johns-Manville, New York.
SELECTIVE HEAD—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati.
SELF GRINDING—Chasers. Armstrong Mfg. Co., Bridgeport, Conn.
SELFVULC—Plastic rubber. Self-Vulcanizing Rubber Co., Inc., Chicago, Ill.
SELLS — Roller bearings. Royersford Foundry and Machine Co., Royersford, Pa.
SEMALU—High aluminum brick. General Refractories Co., Philadelphia, Pa.
SEMIBRONZE—Piston packing, asbestos metallic gaskets, etc. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SEMINOLE—Alloy chisel steel. Ludlum Steel Co., Watervliet, N. Y.
SENATE—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENATE — Packing. Consolidated Packing & Supply Co., New York, N. Y.
SENATOR—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.

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SENECA — Hose. Goodall Rubber Co., Philadelphia, Pa.
SENIOR—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
SENSATHERM—Thermostats. The Mercoid Corp., Chicago, Ill.
SENTINEL—Contractors' gasoline equipment. Loane Engineering Co., Baltimore, Md.
SENTINEL—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENTINEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
SERPENTINE—Hose. Home Rubber Co., Trenton, N. J.
SERVICE — Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SERVICE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SERVICE—Packings and gaskets. Johns-Manville, New York, N. Y.
SERVICE—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
SERVICE-AMERICAN—Hand trucks. The Service Caster & Truck Co., Albion, Mich.
SERVICE BRAND—Conveyor belts. Link-Belt Co., Chicago, Ill.
7716—Twist drills. National Twist Drill & Tool Co., Detroit, Mich.
SETTE—Oil faucets. Imperial Brass Mfg. Co., Chicago, Ill.
SHAFERITE—Plastic metallic packing. Consolidated Packing & Supply Co., New York, N. Y.
SHARK BRAND—Chisels, gouges and plane irons. Sandvik Saw and Tool Corp., Minneapolis, Minn.
SHASTA—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, O.
SHEARCUT—Spiral flute taps. Standard Tool Co., Cleveland, Ohio.
SHEAR-KUT—Valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SHEDITE—Waterproof leather belting. I. B. Williams & Sons, Dover, N. H.
SHELBURNE—Tools. Goodell-Pratt Co., Division of Millers Falls Co., Greenfield, Mass.
SHELBY—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
SHELDON—Car movers. The Aldon Co., Chicago, Ill.
SHEPARD—Vises. Prentiss Vise Co., New York, N. Y.
SHERIFF—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
SHERMAN — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
SHIELD — Leather belting. McCauley Belting Co., Chicago, Ill.
SHIELD—Machine knives. Taylor, Stiles & Co., Riegelsville, N. J.
SHIELD ARC—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
SHIELD BRAND—Twist drills, reamers, cutters, taps, dies, drill chucks and special tools. The Standard Tool Co., Cleveland, Ohio.
SHOK-PRUF-LOX—Door lock sets, etc. Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
SHORT LAP—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SHORTWALOADER—Loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
SHUR-BRITE — Metal polish. Ensign Products Co., Cleveland, Ohio.
SHUR-FLO—Oil cups. Hunter Pressed Steel Co., Lansdale, Pa.
SHUR-GRIP—File and solder iron handles. Parker-Kalon Corp., New York.
SHUR-KLEEN—Oil soap. Ensign Products Co., Cleveland, Ohio.
SHURLOX—Lock washers. The Washburn Co., Worcester, Mass.
SHUR MIST—Garden hose nozzle. Consolidated Brass Co., Detroit, Mich.
SHUSTER—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
SIBLEYWARE—Drilling machines. Sibley Machine & Foundry Co., South Bend, Ind.
SIDELING—Steam traps. Nason Manufacturing Co., New York, N. Y.
SIEBEN—Grease traps, etc. Prier Brass Mfg. Co., Kansas City, Mo.
SIG-NAL-ITE—Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
SIGMA STEEL—Valves, pipe fittings and flanges. Walworth Co., New York, N. Y.
SIGNAL—Glass body oilers. The Wm. Powell Co., Cincinnati, Ohio.
SIGNAL MASTER—Sirens. E. D. Bullard Co., San Francisco, Cal.
SIGNET—Compression stops, and stops and drains. Hays Manufacturing Co., Erie, Pa.
SIL-FOS—Brazing alloy. Handy & Harman, New York, N. Y.
SIL-O-CEL — Insulation. Johns-Manville, New York, N. Y.
SILVER EDGE—Wheel pullers, belts, riveting machines, etc. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
SILVER GENUINE—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
SILVER KING—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SILVER METAL—Galvanizing flux. Empire Metal Co., Syracuse, N. Y.
SILVER STEEL—Saws. E. C. Atkins and Co., Indianapolis, Ind.
SILVERLINK—Roller chain. Link-Belt Co., Chicago, Ill.
SILVERSEAL—Wire-mesh reinforced asbestos sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
SILVERSTREAK — Silent chain drives. Link-Belt Co., Chicago, Ill.
SIMANG—Drift pins. Bonney Forge & Tool Works, Allentown, Pa.
SIMPLATE—Valves for air compressors Chicago Pneumatic Tool Co., New York, N. Y.
SIMPLE—Single steam pumps. Dean Brothers Co., Indianapolis, Ind.
SIMPLEX—Alloy forging steel. Crucible Steel Co. of America, New York, N. Y.
SIMPLEX—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SIMPLEX—Bench and floor grinders. Wales Sales Corp., New York, N. Y.
SIMPLEX—Chain hoists. Speidel Elevator Corp., Reading, Pa.
SIMPLEX—Jacks, trench braces and pump pushers. Templeton, Kenly & Co., Chicago, Ill.
SIMPLEX—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
SIMPLEX—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SIMPLEX—Tank gauges. Viking Pump Co., Cedar Falls, Iowa.
SIMPLEX—Vises. Desmond-Stephens Mfg. Co., Urbana, Ohio.
SIMPLEX—Water feeders. Nason Manufacturing Co., New York, N. Y.
SIMPLIMATIC — Automatic chucking lathes. Gisholt Machine Co., Madison, Wis.
SINDEN—Box car loaders. Stephens-Adamson Mfg. Co., Aurora, Ill.
SINEW—Leather belting. Detroit Oak Belting Company, Detroit, Mich.
SINGER—Glass cutters. Wm. L. Barrett Co., Bristol, Conn.
SIRACODE—Sirens. E. D. Bullard Co., San Francisco, Cal.
SIROCCO—Fans and unit heaters. American Blower Corp., Detroit, Mich.
SIRTAN—Flat belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SIRVIS—Packing leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
600—Graphite cylinder oil. The Franklin Oil & Gas Co., Bedford, Conn.
SIXCEL—Pipe and boiler covering. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
SKASCO—Core oils. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
SKOOKUM—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SKOOKUM—Roof cement. Maire Paint & Mfg. Co., Minneapolis, Minn.
SKY SERVICE HI DUTY CONNECTIONS—Copper tube couplings. Imperial Brass Manufacturing Co., Chicago, Ill.
SLAB BURNER—Boilers. A. B. Farquhar Co., Ltd., York, Pa.
SLASET—Lubricated rotor valve. The Lunkenheimer Co., Cincinnati, Ohio.
SLIP—Pump valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SLIPON—Electric lamp guards. McGill Mfg. Co., Valparaiso, Ind.
SLO-SPEED—Drill presses. Delta Manufacturing Co., Milwaukee, Wis.
SLUGIN—Bolt anchors. Star Expansion Bolt Co., New York, N. Y.
SMITH—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
J. BARTON SMITH—Files and rasps. Nicholson File Co., Providence, R. I.
SMITH MULTIPLEX PRESSURE—Railroad devices. The Clark Manufacturing Co., Philadelphia, Pa.
SMITH PATENT—Belt fasteners. H. D. Edwards & Co., Detroit, Mich.
SMITH PATENT ADJUSTABLE—Round dies. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
SMITH TYPE—Friction clutches. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
SMOKE SLACK BLACK—Paint. A. C. Horn Co., Long Island City, N. Y.
SMOOTH-KUT—Reamers and valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SNOW—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SNOWDRIFT—Wiping waste and rags. Sweetland Waste Co., Inc., Canton, Mass.
SOAPURN — Liquid soap dispensers. Charles Morrill, Inc., New York, N. Y.
SOC-KIT—Socket wrench sets. Keystone Mfg. Co., Buffalo, N. Y.
SOCONY—Industrial petroleum products. The Standard Oil Co. of New York, New York, N. Y.
SOLAR—Packing. Home Rubber Co., Trenton, N. J.
SOLARITE—Kalsomine. The Reardon Co., St. Louis, Mo.
SOLBASENE—Soluble oil base. The Metalene Chemical Co., Cleveland, Ohio.
SOLDER-MASTER — Hexacon Appliance Corp., Roselle Park, N. J.
SOLID EDGE—Corrugated matting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SOLID STEEL—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
SOLID TRIUMPH—Tampico wheels. The Osborn Manufacturing Co., Cleveland, O.
SOLVOL—Boiler compound. Duryea Manufacturing Co., Bayonne, N. J.
SOLVIT—Cleaners. The Hollow Center Packing Co., Cleveland, Ohio.
SONDERGLASS—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
SOOT EJECTOR and **SOOT SUCKER**—Boiler tube and flue cleaners. William H. Murray, Richmond Hill, New York, N. Y.
SORWAL—Grinding wheel coolant filters. The Fostoria Pressed Steel Corp., Fostoria, Ohio.
SOUTH BEND—Drilling machines. Sibley Machine Co., South Bend, Ind.
SOUTHERN—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
SOVEREIGN—Sheet and rod packing. The Darcoid Co., Inc., New York, N. Y.
SPANDO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SPAROAK—Leather belting. Graton & Knight Co., Worcester, Mass.
SPARTAN—Hose. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
SPARTAN—Sisal rope. American Manufacturing Co., Brooklyn, N. Y.
SPARTON—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SPASAVER—Work benches. W. C. Toles Co., Woodstock, Ill.
SPECIAL No. 13 and No. 9.—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
SPECIAL RETAN — Steamproof leather belting. J. Bachmann & Co., Inc., New York, N. Y.
SPECIFICATION—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SPEED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
SPEED-BLOC—Sander. Sterling Products Co., Detroit, Mich.
SPEED-GRITS — Sandpaper combination. Behr-Manning Corp., Troy, N. Y.
SPEED-UP—Tools. Stevens Walden, Inc., Worcester, Mass.
SPEED-WET—Sandpaper. Behr-Manning Corp., Troy, N. Y.
SPEEDAGE—Fabric flat belts. L. H. Gilmer Co., Tacony, Philadelphia, Pa.
SPEEDBARROW—Wheelbarrows. General Wheelbarrow Co., Cleveland, Ohio.
SPEEDER—Hammer mill special belting. The Hettrick Mfg. Co., Toledo, Ohio.
SPEEDIZED—Wood screws. Elco Tool & Screw Corp., Rockford, Ill.
SPEEDMATIC SAW — Portable electric hand saw. The Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
SPEEDO—Washing powder. Ensign Products Co., Cleveland, Ohio.
SPEEDSTER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SPEEDY—Hole cutting bits. W. A. Whitney Mfg. Co., Rockford, Ill.
SPHINX—Belting, hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SPIDER—Rod packing. New York Belting & Packing Co., Passaic, N. J.
SPIDER—Window brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
SPIDER WEBB — Leather belting and dressing. J. A. Webb Belting Co., Inc., Buffalo, N. Y.
SPINTITE—Wrenches. Stevens Walden, Inc., Worcester, Mass.
SPIRAL—Pulley clutches and cut off couplings. Kinney Manufacturing Co., Boston 30, Mass.
SPIRAL LOCK SEAM and **SPIRALWELD**—Pipe. Naylor Pipe Co., Chicago, Ill.
SPIREX—Machine taper pin reamers. The Cleveland Twist Drill Co., Cleveland, O.
SPIRO — Compression shaft couplings. Bond Foundry and Machine Co., Manheim, Pa.
SPRACO — Spray painting equipment. Spray Engineering Co., Somerville, Mass.
SPRAYIT — Paint spraying equipment. The Electric Sprayit Co., South Bend, Ind.
SPRING BEARING—Factory and warehouse trucks. West Bend Equipment Corp., West Bend, Wis.

SPRING HANDLE—Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
SPRING-STEEL—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
SPRINGINS—Toggle bolts. Star Expansion Bolt Co., New York, N. Y.
SPRITE—Lubricators. Essex Brass Corp., Detroit, Mich.
SPRUCOLITE—Compressed spruce motor pulleys. The American Pulley Co., Philadelphia, Pa.
SQ. TRIMMED—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
SQUADRON—Rod packing. The Darcoid Co., Inc., New York, N. Y.
STA-FAST—Steel wedges for hammer, sledge and axe handles. The Standard Belt Fastener Co., Unionville, Conn.
STA-PAK — Packless radiator valves. Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
STA-SHARP—Diamond tools and dressers. Commercial Diamond Co., Detroit, Mich.
STABLE ARC—Welders. The Lincoln Electric Co., Cleveland, Ohio.
STACKER—Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STACKER — Portable elevators. Lewis-Shepard Co., Watertown Station, Boston, Mass.
STAINWELD A—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
STALWART—Hose. Goodall Rubber Co., Philadelphia, Pa.
STAMCO—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
STANBRITE — Galvanizing flux. United American Metals Corp., Brooklyn, N. Y.
STANDARD—Axes, hammers, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
STANDARD—Belt fasteners. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
STANDARD—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STANDARD—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
STANDARD—"C" clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
STANDARD—Counting machines. R. E. Hart Mfg. Co., Battle Creek, Mich.
STANDARD—Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
STANDARD — Electrical drills, grinders, buffing and polishing machines. The Standard Electrical Tool Co., Cincinnati.
STANDARD—Fire hydrants. The Kennedy Valve Manufacturing Co., Elmira, N. Y.
STANDARD—Hose. Electric Hose & Rubber Co., Wilmington, Del.
STANDARD—Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
STANDARD—Load binders. Advance Car Mover Co., Inc., Appleton, Wis.
STANDARD — Plumb bobs. Keuffel & Esser Co., Hoboken, N. J.
STANDARD—Refractory cement. General Refractories Co., Philadelphia, Pa.
STANDARD—Saw gunner. Ajax Mfg. Co., Pittsburgh, Pa.
STANDARD — Silica brick. General Refractories Co., Philadelphia, Pa.
STANDARD — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
STANDARD — Track levels. Tallman Manufacturing Co., Shelbyville, Ill.
STANDARD PATTERN—Grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
STANDARD REXALL and **SAHARA**—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
STANICO—Sheet and plate working machinery. The Streine Tool & Mfg. Co., New Bremen, Ohio.
STANNUM—Babbitt metal. Lumen Bearing Co., Buffalo, N. Y.
STANOCEL—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
STANWELL—Canvas stitched belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
STAN-WELD—High speed welded blade reamers. Standard Tool Co., Cleveland, Ohio.
STAPAX—Semi-metallic plastic packing. Rhodes Packing Co., Chatham, N. J.
STAR — Babbitt metal. Rogers Metal Works, Kansas City, Mo.
STAR—Grease cups. American Injector Co., Detroit, Mich.
STAR—Hack saws and band saws. Clemson Bros., Inc., Middletown, N. Y.
STAR—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STAR—Insulating or friction tapes. Manning J. Smith Belting Co., Division of J. Sullivan & Sons Mfg. Co., Philadelphia, Pa.
STAR—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
STAR—Post hole diggers and augers. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STAR—Wheelbarrows and drag scrapers. The Case Crane and Kilbourne Jacobs Co., Columbus, Ohio.
STAR AND CRESCENT—Soldering flux. McGill Manufacturing Co., Valparaiso, Ind.
STAR BRAND—Check straps. Baltimore Belting Co., Baltimore, Md.
STAR BRAND—Flint paper and emery cloth. Baeder-Adamson Co., Philadelphia, Pa.
STAR BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
STAR BRAND—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
STAR OF BETHLEHEM—Tool handles. L. W. Strock & Co., Bethlehem, Pa.
STARS AND CROSS—Files and tools. American Swiss File & Tool Co., Elizabeth, N. J.
STARLAG—Lag screw expansion shields. Star Expansion Bolt Co., New York, N. Y.
STATITE—Pipe joint cement. The Garland Co., Cleveland, Ohio.
STEARNS — Magnetic clutches, pulleys, etc. Magnetic Manufacturing Co., Milwaukee, Wis.
STEEL-ARM—Automatic belt tighteners. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
STEEL CLAD—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
STEEL LINK-BELT—Detachable chains. Link-Belt Co., Chicago, Ill.
STEEL MIXTURE—Fire clay arches and high temperature cements, etc. McLeod & Henry Co., Troy, N. Y.
STEEL-VENEER — Granular refractory. Keystone Refractories Co., New York.
STEELBAC—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
STEELCRAFT — Cap and set screws. Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
STEELFRAME—Pipe wrenches. Threadwell Tap & Die Co., Greenfield, Mass.
STEELEG—Lift truck platforms. Barrett-Cravens Co., Chicago, Ill.
STEELGRIP—Flexible steel belt lacing and gear and wheel and pulley pullers. Armstrong-Bray & Co., Chicago, Ill.
STEELITE—Babbitt. Gardiner Metal Co., Chicago, Ill.
STEELKLAD — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
STEEL SOCKET BRIDGE — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
STEER—Leather belting. McCauley Belting Co., Chicago, Ill.
STEERBAX—Leather belting and cement. Whiting Leather & Belting Co., Long Island City, N. Y.
STEMPIRE STEMPEL and **STEMPEL FOAM**—Fire fighting devices. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
STEPHAN STICK—Belt dressing. Desmond-Stephan Mfg. Co., Urbana, Ohio.
STERBLUE and **STERBON** — Grinding wheels and blocks. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
STERLING—Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
STERLING—Tungsten blades. Diamond Saw and Stamping Works, Buffalo, N. Y.
STERLING—Packing. Home Rubber Co., Trenton, N. J.
STERLING—Levels. The Peerless Level & Tool Co., Sterling, Ill.
STERLING—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
STERLING—Nails and wire. Northwestern Barb Wire Co., Sterling, Ill.
STERLING—Paver and water hose. New York Belting & Packing Co., Passaic, N. J.
STERLING—Radiator hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
STERLITE—Grinding wheels and blocks. The Sterling Grinding Wheel Co. Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
STETSON—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
STEVEDORE — Transmission rope with and without hunt adjustable tension couplings. Wall Rope Works, Inc., New York, N. Y.
STEVENS—Fire clay brick. General Refractories Co., Philadelphia, Pa.
STICK TIGHT—Waterproof leather belting. O'Meara Belting Co., Omaha, Neb.
STOCKLAND—Graders. Foote Bros. Gear & Machine Co., Chicago, Ill.
STOCO—Safety goggles. Shur-On Optical Co., Inc., Geneva, N. Y.
STONEWALL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
STONEWALL—Hose. Goodall Rubber Co., Philadelphia, Pa.
STORM KING—Leather belting. Foss & Bump, Inc., Springfield, Mass.
STOWE—Stokers. The Johnston & Jennings Co., Cleveland, Ohio.
STRAIGHT-LINE—Sander. The Dallet Co., Philadelphia, Pa.
STRAIGHTLINE—Sludge, grit and scum collectors, aerators and sewage screens. Link-Belt Co., Chicago, Ill.
STRAIT-LINE—Automatic texrope drive take-up motor base. Allis-Chalmers Manufacturing Co., West Allis, Wis.
STRAIT JACKET BRAND—Leather beltings. F. Raniville Co., Grand Rapids, Mich.
STRAUSS METAL—Cutting tools. Ludlum Steel Co., Watervliet, N. Y.
STREAMLINE—Fittings and copper pipe. Mueller Brass Co., Port Huron, Mich.
STROLITE—Chain, dogs, etc. The Carroll Chain Co., Columbus, Ohio.
STRONG BOY—Padlocks. Master Lock Co., Milwaukee, Wis.
STRONGHOLD—Leather belting, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
STUART—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
STUB—Lathes. Sundstrand Machine Tool Co., Rockford, Ill.
STUBBING—Hand lift trucks. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.
SUBMARINE—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
SUBWAY—Hose. Goodall Rubber Co., Philadelphia, Pa.
SUCCESS—Circular wire brush sections. The Herold Bros. Co., Cleveland, Ohio.
SUCCESS—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
SUDSOIL NEUTRALINE—Oil soap. Pacific Chemical Co., Los Angeles, Calif.
SULPHURETTE—Compound for copper oxidizing. C. G. Buchanan Chemical Co., Cincinnati, Ohio.
SUMAC—Boiler compound. Imperial Floor Co., Inc., Rochester, N. Y.
SUMMIT—Belting. The B. F. Goodrich Co., Akron, Ohio.
SUMTER—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SUNOCO—Petroleum products. Sun Oil Co., Philadelphia, Pa.
SUNPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUNSET—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUPER—Aluminum solder. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SUPER—Valve reseaters. Jay-Tee Tool Sales Co., Cleveland, Ohio.
SUPER ALUMALOY — Bearing metals. Premium Metal & Packing Co., Wilkinsburg, Pa.
SUPER-BUILT—Aluminum floats. Arthur Harris & Co., Chicago, Ill.
SUPER-DREADNAUGHT—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER-DREDNAUT—Goggles and lenses. The Safety Equipment Service Co., Cleveland, Ohio.
SUPER DUTY—Files, rasps and butcher steels. The Cleveland File Co., Cleveland, Ohio.
SUPER EXCELO—Conveyor belting. The Republic Rubber Co., Youngstown, Ohio.
SUPER FUME PROOF WHITE—Inside paint. A. C. Horn Co., Long Island City, N. Y.
SUPER HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER-KOOL—Automatic screw washing oil. D. A. Stuart Oil Co., Chicago, Ill.
SUPERMAL—Malleable iron chains, etc. The Jeffrey Mfg. Co., Columbus, Ohio.
SUPER-MARCO — Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
SUPER-MASTER—Belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER MASTER—Lawn mowers. Worcester Lawn Mower Co., Worcester, Mass.
SUPER-MICROMETER — Measuring machines. Pratt & Whitney Co., Hartford, Conn.
SUPER-NIAGARA — Emery. Keystone Emery Mills, Philadelphia, Pa.
SUPER BOB-CAT—Mechanics' hand tools. Hinsdale Manufacturing Co., Chicago, Ill.
SUPER 8—Solid round leather belting. F. Raniville Co., Grand Rapids, Mich.
SUPER ELM PARK—Lawn mowers. Worcester Lawn Mower Co., Worcester, Mass.
SUPER PLASTIC—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
SUPER PORTO—Portable electric saws. Portable Power Tool Corp., Warsaw, Ind.
SUPER POWER—Magnetic chucks. Taft-Peirce Mfg. Co., Woonsocket, R. I.
SUPER POWER—Short center belt drive. Baldwin Belting & Leather Co., Inc., New York, N. Y.
SUPER-SAW—Electric handsaw. Milwaukee Electric Tool Corp., Milwaukee, Wis.

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SUPER SCREW-SHOOTER—Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER SERVICE — Belting, hose and packing. Hamilton Rubber Mfg. Co., Trenton, N. J.
SUPER SERVICE—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SUPER SILVERTOP—Inverted bucket steam trap. The V. D. Anderson Co., Cleveland, Ohio.
SUPER-SIX—Battery tools. S. R. M. Orum, Inc., Philadelphia, Pa.
SUPER-STERLING — Hack saw blades. Diamond Saw & Stamping Works, Buffalo, N. Y.
SUPER-SUPERIOR—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPER-WAY—Mill type doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
SUPER WOODWORKER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SUPERBA—Oils, greases, packing, etc. Curry Brothers Oil Co., Boston, Mass.
SUPERBELT—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
SUPERCLAMP—Steel "C" clamp. The Cincinnati Tool Co., Cincinnati, Ohio.
SUPEREX — Insulation. Johns-Manville, New York, N. Y.
SUPERFLAKE—Graphite, greases, paints, penerating oil, pipe joint compound, belt and wire rope dressing and rust preventive. Superior Flake Graphite Co., Chicago, Ill.
SUPERJUSTABLE — Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERPACKING — Leather packings. Philadelphia Belting Co., Philadelphia, Pa.
SUPERIOR—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
SUPERIOR—Car movers and rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
SUPERIOR—Horse rasps. Nicholson File Co., Providence, R. I.
SUPERIOR—Leather belting, pins, gear blanks, etc. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPERIOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
SUPERIOR — Manila rope. American Manufacturing Co., Brooklyn, N. Y.
SUPERIOR MILLED TOOTH — Files. Nicholson File Co., Providence, R. I.
SUPERIOR — Oil filters. Handlan-Buck Mfg. Co., St. Louis, Mo.
SUPERIOR — Oil and gas line tubing. Penn Brass & Copper Co., Erie, Pa.
SUPERIOR — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPERIOR—Spring bottom oilers. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
SUPERIOR — Woodworking machinery. Jones Superior Machine Co., Chicago, Ill.
SUPERIOR—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERIOR PLATINUM POINT — Coil files. Nicholson File Co., Providence, R. I.
SUPERMAL—Special treated malleable iron for chains and buckets. The Jeffrey Manufacturing Co., Columbus, Ohio.
SUPERRENCH—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSTEEL—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
SUPERTAN — Leather belting. Baldwin Belting & Leather Co., Inc., New York.
SUPERTENSIL—Cap screws. The Lamson & Sessions Co., Cleveland, Ohio.
SUPREME — Hose. Home Rubber Co., Trenton, N. J.
SUPREME—Oil lanterns. Embury Mfg. Co., Warsaw, N. Y.
SUPREME — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPREME — Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
SURE-CLEAN — Window cleaners. The Osborn Manufacturing Co., Cleveland, O.
SURE-GRIP—Collets. Sutton Tool Co., Detroit, Mich.
SURE GRIP—Door hangers, etc. The F. E. Myers & Bro. Co., Ashland, Ohio.
SUREFEED—Lubricators. American Injector Co., Detroit, Mich.
SUREGRIP—Nail pullers. The Bridgeport Hdwe. Mfg. Co., Bridgeport, Conn.
SURELOCK—Grease cups. American Injector Co., Detroit, Mich.
SUREVENT—Equalizing valves for venting radiators. Gorton Heating Corp., Cranford, N. J.
SURPRISE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
SURPRISE—Oil burners. Efficiency Engineering Co., Boston, Mass.
SUTTON—Leather belting. Johnson Belting Co., New York, N. Y.
SVEA—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
SWACO—Car movers and wrenches. (Car dumping.) Safety Wrench & Appliance Co., Worcester, Mass.
SWAN—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
SWIVEL HEAD—Bolt clippers. U. K. Porter, Inc., Everett, Mass.
SYKES—Herringbone gears and reducers. Link-Belt Co., Chicago, Ill.
SYKES—Hose holder. W. D. Allen Mfg. Co., Chicago, Ill.
SYNCROGEAR—Motors. U. S. Electrical Mfg. Co., Los Angeles, Calif.
SYRACUSE METALS—Metals and solder. United American Metals Corp., Brooklyn, N. Y.
SYRACUSE SANDER—Sanding machines. Porter-Cable-Hutchinson Corp., Syracuse, N. Y.

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T J—Die sinking cutters. The Tomkins-Johnson Co., Jackson, Mich.
TR—Motors. The Triumph Electric Corp., Carthage, Cincinnati, Ohio.
TABCO—Blowers, air compressors, etc. Allen & Billmyre Co., Inc., New York.
TACOMA—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAKE-ABOUT SANDER—Portable electric sanding and polishing machines. The Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
TALISMANIC—Belt dressings. John C. Chambers Co., Chicago, Ill.
TAMARACK—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAMPAX—Fibre sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TAMPIN—Machine screw anchors. Star Expansion Bolt Co., New York, N. Y.
TAN-O-TAN BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TANCHROME—Leather packing. Michigan Leather Packing Co., Detroit, Mich.
TANDEM—Pressure oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TANGLE PROOF—Spring lock washers. Hobbs Manufacturing Co., Worcester, Mass.
TANK TYPE—Belt conveyor trippers. Link-Belt Co., Chicago, Ill.
TANNATE — Leather belting, belt preserver, packing, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
TANSEAL—Vegetable-fibre sheet packing. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
TANTAR—Packing. Advance Packing & Supply Co., Chicago, Ill.
TAPERED SOCKET—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
TAPERLOCK — Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TARK—Sewage screen. Link-Belt Co., Chicago, Ill.
TARPON—Leather belting. Page Belting Co., Concord, N. H.
TARRANT—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TASGON—Penetrating oil and rust solvent. The Wilbur & Williams Co., Boston, Mass.
TATE—Flexible boiler staybolts. Flannery Bolt Co., Pittsburgh, Pa.
TEE—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
TEE FLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
TEEFERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TEMCROSS—Steel. Ingersoll Steel & Disc Co., Newcastle, Ind.
TEMPLE—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TENAX—Compressed asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TENAX — Expansion shields. Diamond Expansion Bolt Co., Inc., Garwood, N. J.
TENEX—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
TENSILLITE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
TENSO—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
TENTACULAR—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
TEON—Belting. D. P. Brown & Co., Philadelphia, Pa.
TERMODYNE—Babbitt metal. Federated Metals Corp., New York, N. Y.
TERRIER—Alligator type wrenches. The Kilborn and Bishop Co., New Haven, Conn.
TERRIER—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TEST—R. C. Fire hose. New York Belting & Packing Co., Passaic, N. J.
TEST SPECIAL — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TEX DRIVE—V belt grinders and buffers. The Hisey-Wolf Machine Co., Cincinnati.
TEX ROPE—Multiple V-belt drives. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TEXSTEEL — Pressed steel Texrope (V-belt) drive sheaves. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TEX-TIL TYPE—Casing for silent chain drives. Link-Belt Co., Chicago, Ill.
TEXTOLITE—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.
TEXTOLITE—Wheels. The Service Caster & Truck Co., Albion, Mich.
THE GEAR WITH A BACKBONE—Herringbone gears. Farrel-Birmingham Co., Inc., Buffalo, N. Y.
THEMAC—Portable electric precision grinder. The McGonegal Mfg. Co., East Rutherford, N. J.
THERMAL—Traps. Nason Manufacturing Co., New York, N. Y.
THERMO—Canvas stitched conveyor belt, etc. Gandy Belting Co., Grand Rapids, Mich.
THERMO — Industrial glass. Macbeth-Evans Glass Co., Charleroi, Pa.
THERMO—Leather belting. Couse & Bolten, Inc., Newark, N. J.
THERMO—Packings and gaskets. Johns-Manville, New York, N. Y.
THERMO-GANDY — Belting. The Gandy Belting Co., Grand Rapids, Mich.
THERMOFLEX — Steam specialties, etc. Grinnell Co., Inc., Providence, R. I.
THERMO-LECTRIC — Babbitts. Buffalo Foundry & Machine Co., Buffalo, N. Y.
THERMO TEMPER — Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
THERMOHER — Unit heaters. Grinnell Co., Inc., Providence, R. I.
THERMOKOTE — Heat resistant paint. Vita-Var Corp., Newark, N. J.
THERMOLD—Refractory cement. Technical Products Co., Pittsburgh, Pa.
THERMOLIER—Unit heaters. Grinnell Co., Inc., Providence, R. I.
THERMOLITE—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
THERMOLITH—High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
THERMOPLAX—Moulded insulation. Cutler-Hammer, Inc., Milwaukee, Wis.
THISTLE BRAND—Taps, dies and screw plates. Winter Brothers Co., Inc., Wrentham, Mass.
THOMAS—Calorimeters and meters. Cutler-Hammer, Inc., Milwaukee, Wis.
THOMAS—Pumps. Smith-Meeker Engrg. Co., New York, N. Y.
THOMPSON—Damper regulators and planimeters. William H. Murray, Richmond Hill, New York, N. Y.
THOR—Belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
THOR—Electric and pneumatic tools and air compressors. Independent Pneumatic Tool Co., Chicago, Ill.
THOR COCHISE—Rock drills and stopers. Independent Pneumatic Tool Co., Chicago, Ill.
THOROBRED—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
THRED-KUT—Lubricating oil. D. A. Stuart Oil Co., Chicago, Ill.
THREDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
THREE IN ONE—Force pumps. Charles Perkes Co., Philadelphia, Pa.
THREE-IN-ONE—Vapor-vacuum fittings. Messmer Brass Co., St. Louis, Mo.
THREE-M—Sandpapers. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE-M-ITE—Abrasive cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE PART RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
NO. 371—Belt preserver. Ensign Products Co., Cleveland, Ohio.
3-W STERIL-CLEAN — Wiping cloths. Wisconsin Waste and Wiper Co., Milwaukee, Wis.
THRESHER—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
THURCO — Milling cutters, saws, etc. Thurston Mfg. Co., Providence, R. I.
TIGER—Belting and hose. Home Rubber Co., Trenton, N. J.
TIGER—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TIGER—Hose and cloth insertion sheet packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
TIGER—Sash cord. Samson Cordage Works, Boston, Mass.
TIGER—Wire rope clips and sockets. American Steel & Wire Co., Chicago, Ill.

TIGER TAM—Leather belting. Baltimore Belting Co., Baltimore, Md.
TILTON—Canvas and cotton belting, etc. Arthur S. Brown Mfg. Co., Tilton, N. H.
TIMBERTEX — Asbestos shingles. The Ruberoid Co., New York, N. Y.
TINOL—Flux powder. American Solder & Flux Co., Philadelphia, Pa.
TIREX—Wires and cables. Simplex Wire & Cable Co., Boston, Mass.
TIS-WITE—Mill white paint. Otley Paint Mfg. Co., Chicago, Ill.
TITAN—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
TITAN—Belting hose, packing, mats, cement, etc., Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TITAN—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
TITANLIGHT — Goggles. Chicago Eye Shield Co., Chicago, Ill.
TITEFIT—Goggles. Chicago Eye Shield Co., Chicago, Ill.
TITE SEAL—Sealing compound. The Fostoria Pressed Steel Corp., Fostoria, Ohio.
TOBIN BRONZE—Sheets, rods and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
TOM THUMB—Portable pipe machine. The Oster-Williams, Cleveland, Ohio.
TON-CAP—Wire screen. The W. S. Tyler Co., Cleveland, Ohio.
TONCAN IRON—Sheet and pipe. Republic Steel Corp., Cleveland, Ohio.
TONKA—Water hose. The Republic Rubber Co., Youngstown, Ohio.
TONWATE—Casters and wheels. Divine Brothers Co., Utica, N. Y.
44 TOOLMAKER—Fractional horse power precision grinders. The Dumore Co., Racine, Wis.
TOOL COOL—Soluble oil. The Franklin Oil & Gas Co., Bedford, Ohio.
TOOL-MAKERS—C-Clamps. J. H. Williams & Co., New York, N. Y.
TOPAZ—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TORNADO—Boiler tube cleaner. Paul B. Huyette Co., Inc., Philadelphia, Pa.
TORNADO — Vacuum cleaners, electric blowers and electric insecticide and paint sprayers. Breuer Electric Manufacturing Co., Chicago, Ill.
TORNEDO — Waterproof leather belting and belt cement. O'Meara Belting Co., Omaha, Neb.
TORPEDO—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
TORSIMETER—Adjustable clutch screwdriver and portable electric screwdriver. The Black & Decker Mfg. Co., Towson, Md.
TORSIMETER—Portable electric screwdriver. The Van Dorn Electric Tool Co., Towson, Md.
TOTALUME—Rust inhibiting paint. The Edwin H. Fitler Co., Philadelphia, Pa.
TOTRUST—Rust inhibiting paint. The Edwin H. Fitler Co., Philadelphia, Pa.
TOTRUST—Rust preventive paint. The Wilbur William Co., Boston, Mass.
TOUGHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TOURIST-T8-5—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
TOWER—Pneumatic tool hose. The Republic Rubber Co., Youngstown, Ohio.
TRACYFIER—Steam purifier. Blaw-Knox Co., Pittsburgh, Pa.
TRAFFIC MODEL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
TRAHERN—Rotary pumps. Geo. H. Roper Corp., Rockford, Ill.
TRANCO—Lift trucks. Chapman Bearing & Engineering Corp., Buffalo, N. Y.
TRANSIT—Pumps, tools and compressors. National Transit Pump & Machine Co., Oil City, Pa.
TRANSITE—Asbestos roofing and siding. Johns-Manville, New York.
TREMONT—Snap lever oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TRENTON-BLEICHERT—Aerial tramways. American Steel & Wire Co., Chicago, Ill.
TRI B. BRAND—Industrial chemicals. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRI-M-ITE—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
TRI-PLEX — Combination lathe chucks. The Cushman Chuck Co., Hartford, Conn.
TRI-WELD—Steel loading chain. The Cleveland Chain & Mfg. Co., Cleveland, O.
TRIANGLE—Hand hammers and masonry drills. The Rawlplug Co., New York, N. Y.
TRIANGLE B. BRAND—Fluxes and compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRIBLOC — Chain hoists. Ford Chain Block Co., Philadelphia, Pa.
TRICROME—Cutter wheels and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIDENT—Loading chain, guy clamps and drill press and vise. Newhall Chain Forge & Iron Co., New York, N. Y.
TRILOCK—Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TRIMO—Wrenches and pipe tools. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIMO-ALLOY—Pipe wrenches. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRINIDAD—Asphalt. The Barber Asphalt Co., Philadelphia, Pa.
TRIPLE—Pipe bends, headers and fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLE A—Blowers, exhausters, vacuum, etc. Allen Air Appliance Co., Inc., New York, N. Y.
TRIPLE-A—Protective coatings. Quigley Co., Inc., New York, N. Y.
TRIPLE DIAMOND—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE DUTY — Drill presses. Delta Manufacturing Co., Milwaukee, Wis.
TRIPLE DUTY—Emergency valves. Foster Engineering Co., Newark, N. J.
TRIPLE STAR — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE XXX—Fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLEX — Buffs. Hanson-Van Winkle-Munning Co., Matawan, N. J.
TRIPLEX — Combination lathe, milling machine and drill press. B. C. Ames Co., Waltham, Mass.
TRIPLEX (THE)—Lathe chuck. The Cushman Chuck Co., Hartford, Conn.
TRIPLEX — Oil gauges. The Lunkenheimer Co., Cincinnati, Ohio.
TRIPOLINE — Metal polish. Matchless Metal Polish Co., Chicago, Ill.
TRIPPER—Conveyor belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TRIPURE—Water stills. Standard Water Systems Co. of New Jersey, Hampton, N. J.
TRIUMPH — Eyelet pliers and eyelets. The Wm. Schollhorn Co., New Haven, Conn.
TRIUMPH — Single or double jacketed plain metal asbestos gaskets. Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
TRIUMPH—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
TRIUMPH—White tampico sections. The Osborn Manufacturing Co., Cleveland, O.
TRIXAS — Insulating paint. American Asphalt Paint Co., Chicago, Ill.
TROJAN—Gauge cocks and reflex gauges. Klingerit, Inc., New York, N. Y.
TROJAN—Goggles. Chicago Eye Shield Co., Chicago, Ill.
TROJAN—Metallic packing and grinding compound. H. G. Hammett, Troy, N. Y.
TROJAN — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
TROPHY—Lock bar oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TROUT—Power set works for saw mills. Allis-Chalmers Manufacturing Co., West Allis, Wis.
TRU-LAY — Wire rope. American Cable Co., Inc., Wilkes-Barre, Pa.
TRU LEDE—Commercial ground thread taps. Greenfield Tap & Die Corp., Greenfield, Mass.
TRU-LOC—Wire rope fittings. American Cable Co., Inc., Wilkes-Barre, Pa.
TRUCK FLAR — Truck flares. Anthes Force Oiler Co., Fort Madison, Iowa.
TRUE AMERICAN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
TRUE BLUE—Semi-steel pulleys. W. A. Jones Foundry & Machine Co., Chicago.
TRUE OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
TRUKASTER — Casters. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
TRUKFLAG—Truck flags. Anthes Force Oiler Co., Fort Madison, Iowa.
TRUNDLER—Trucks. The Service Caster & Truck Co., Albion, Mich.
TRUSFORM—Snap gauges. Pratt & Whitney Co., Hartford, Conn.
TRUSTY—Gasoline strainers. The Lunkenheimer Co., Cincinnati, Ohio.
TRY-ME—Ball cocks, valves, strainers, etc. Tryco Products, Inc., Westfield, Mass.
TUBOND—Lead lined pipe. National Lead Co., New York, N. Y.
TUCKS—Packings and gaskets. Johns-Manville, New York, N. Y.
TUCONE—Rock bits. Chicago Pneumatic Tool Co., New York, N. Y.
TU-GUYEYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.
TU-TAN—Leather belting. W. S. Nott Co., Minneapolis, Minn.
TUF—Metal valve discs. William H. Murray, Richmond Hill, New York, N. Y.
TUFF—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
TUF-STUF — Aluminum bronze rods. Mueller Brass Co., Port Huron, Mich.
TUF-TAN—Lace leather. Graton & Knight Co., Worcester, Mass.
TUFSTUF—Tool handles. O. P. Link Handle Co., Salem, Ind.
TUJUR—Horizontal condensation pumps. Weil Pump Co., Chicago, Ill.
TUM-BLAST—Tumbling mills. American Foundry Equipment Co., Mishawaka, Ind.
TUNGSTEN POINT (NICHOLSON)—Coil files. Nicholson File Co., Providence, R. I.
TUNGSTEN TEMPER — Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
TURBINE—Lawn sprinkler.. W. D. Allen Mfg. Co., Chicago, Ill.
TURNBUCKLE — Portable pipe benches. Henderson Electric Co., Ampere, N. J.
TURNERLITE — Gasoline lanterns. The Turner Brass Works, Sycamore, Ill.
TURRET—General service pumps. Yeoman Brothers Co., Chicago, Ill.
TURKO—Backing. New York Belting & Packing Co., Passaic, N. J.
TUTALITE — Casein paint. The Wilbur William Co., Boston, Mass.
TUTALUME—Aluminum paint. The Wilbur William Co., Boston, Mass.
TUWAY — Strainers. Wright-Austin Co., Detroit, Mich.
TUXEDO—Bronze unions. Franklin Williams, Inc., Orange, N. J.
No. 12-1855—Bolt clippers. H. K. Porter, Inc., Everett, Mass.
TWENTIETH CENTURY—Balancing tools. Sundstrand Machine Tool Co., Rockford, Ill.
TWENTIETH CENTURY — Boiler tube and flue cleaners. William H. Murray, Richmond Hill, New York, N. Y.
20TH CENTURY — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
20TH CENTURY—Packing. Consolidated Packing & Supply Co., New York, N. Y.
20TH CENTURY—Steel belt lacing and belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
20TH CENTURY — Water coolers, etc. Cordley & Hayes, New York, N. Y.
TWINLINE and **TWINROW** — Tapered roller bearings. Wm. E. Pratt Mfg. Co., Joliet, Ill.
TWISTAR—Brick and stone star drills. The Kilborn & Bishop Co., New Haven, Conn.
"TWO-BITS" ECONOMY — Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
2 IN 1—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
2-IN-1—Tap and reamer wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
TWO IN ONE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
TWO PART SPEED — Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
2-XL—Hose. The Mechanical Rubber Co., Passaic, N. J.
TWO WAY—Machine pumps. The Ross Mfg. Co., Cleveland, Ohio.
TWYNCONE — Friction clutches. Link-Belt Co., Chicago, Ill.
TYFON—Signals and whistles for air and steam. Leslie Co., Lyndhurst, N. J.
TY-LOX—Wire cloth. The W. S. Tyler Co., Cleveland, Ohio.
TYPE 10—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 20—Oxy-acetylene hose. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYPE 30—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 3030—Conveyor belting. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYTE-UNYTE—Pipe joint cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.

U

U. D. MACHINE — Combination punch shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
U. S.—Injectors. American Injector Co., Detroit, Mich.
U. S.—Portland electric drills, grinders, buffers, polishers, etc. United States Electrical Tool Co., Cincinnati, Ohio.
U. S. — Trace chains. The McKay Co., Pittsburgh, Pa.
USG—Carbon Products. The United States Graphite Co., Saginaw, Mich.
U. S.—Gate valves. The Wm. Powell Co., Cincinnati, Ohio.
U-W — Self-locking hoists and tackle blocks, and wire rope fittings. The Upson-Walton Co., Cleveland, Ohio.

UMI

UINTAH—Heat resisting paint. American Asphalt Paint Co., Chicago, Ill.
ULTRA CUT — Screw stock. Bliss & Laughlin, Inc., Harvey, Ill.
UNBRAKO — Screws. Standard Pressed Steel Co., Jenkintown, Pa.
UNBREAKABLE—Hammers and hatchets. Estwing Mfg. Co., Rockford, Ill.
UNBREAKABLE—Nail pullers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
UNDERFEED—Stokers. James Beggs & Co., Inc., New York, N. Y.
UNDERWRITERS — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
UNIBLADE—Blowers. Autovent Fan & Blower Co., Chicago, Ill.
UNI-PILL—Wire scratch brushes. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
UNI-PULL DRIVE—Short-center flat belt drives. The Rockwood Mfg. Co., Indianapolis, Ind.
UNICLOSED — Motors. U. S. Electrical Motors, Inc., Los Angeles, Cal.
UNICOAT GLOSS—Mill white paint. H. Rinald Co., Philadelphia, Pa.
UNICON—Portable belt conveyors. Stephens-Adamson Mfg. Co., Aurora, Ill.
UNION — Chain hoists, trench braces, jacks, etc. J. H. Channon Corp., Chicago.
UNION—Cold pipe covering. Union Fibre Sales Co., Winona, Minn.
UNION—Cold finished steel. Peter A. Frasse & Co., Inc., New York, N. Y.
UNION BEARING METAL—Babbit Metal. Glacier Metal Co., Richmond, Va.
UNION CARBIDE—Calcium carbide. The Linde Air Products Co., New York, N. Y.
UNION COMPOSITE DISC—Globe, angle and check valves. The Wm. Powell Co., Cincinnati, Ohio.
UNION SPECIAL — Anti-friction metal. Federated Metals Corp., New York, N. Y.
UNIONFORMED—Wire rope. Union Wire Rope Corp., Kansas City, Mo.
UNIQUE—Flour and feed mill machinery, etc. Robinson Mfg. Co., Muncy, Pa.
UNIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
UNITED—Valves and fittings. National Lead Co., New York, N. Y.
UNITEX—Fire brick. Quigley Co., New York, N. Y.
UNITO—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
UNIVERSAL—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
UNIVERSAL—Cord spools. McGill Mfg. Co., Valparaiso, Ind.
UNIVERSAL—Hack saw blades. Millers Falls Co., Greenfield, Mass.
UNIVERSAL—Hollow augers. The A. A. Wood & Sons Co., Atlanta, Ga.
UNIVERSAL — Hydraulic jacks and pumps. Richard Dudgeon, Inc., New York, N. Y.
UNIVERSAL—Industrial and automobile turntables. The Canton Foundry & Machine Co., Canton, Ohio.
UNIVERSAL—Measuring tapes, try and mitre squares. The Lufkin Rule Co., Saginaw, Mich.
UNIVERSAL—Oil cups. American Stamping Co., Battle Creek, Mich.
UNIVERSAL—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNIVERSAL — Packings and gaskets. Johns-Manville, New York.
UNIVERSAL — Sheet metal folder and brake. Niagara Machine & Tool Works, Buffalo, N. Y.
UNIVERSAL—Union steam joints. Miles A. Connor, Lockport, N. Y.
UNIVERSAL—Vises. Emmert Mfg. Co., Waynesboro, Pa.
UNIVERSAL BELT OIL—Belt dressing. Burrell Belting Co., Chicago, Ill.
UNIVERSAL GIANT — Friction clutches, automatic belt contactors, hangers and tool grinders. T. B. Wood's Sons Co., Chambersburg, Pa.
UNIVERSAL IRON WORKER—Combination punch, shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
UNIVERSAL TOOLS—Hand chain hoists. Coffing Hoist Co., Danville, Ill.
UNIVERSE—House force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
UNIVERSE — Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNSHAKO—Self-locking nuts. Standard Pressed Steel Co., Jenkintown, Pa.
UNXLD — Damper quadrants. Parker-Kalon Corp., New York, N. Y.
UPSON—Bolts, nuts, rivets, etc. Upson Nut Div., Republic Steel Corp., Cleveland, Ohio.
U. S. TYPE—Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
USACO — Air compressors, spray guns, hydraulic hoists, etc. United States Air Compressor Co., Cleveland, Ohio.
USACO—Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
USARCO — Bar solder and anti-friction metal. Federated Metals Corporation, New York, N. Y.
USCO—Aluminum products. U. S. Reduction Co., East Chicago, Ind.
USE-EM-UP—Drill sleeves and sockets. Scully-Jones & Co., Tool Division, Chicago, Ill.
USETCO—Rotary files. United States Electrical Tool Co., Cincinnati, Ohio.
USHCO—Hammers and wrenches. U. S. Hame Co., Buffalo, N. Y.
USUCO—Unions. United Superior Union Co., Inc., Brooklyn, N. Y.
UTAH—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
UTICA—Die steel. Ludlum Steel Co., Watervliet, N. Y.
UTILITY—Contractors' hoists. Ingersoll-Rand Co., New York, N. Y.
UTILITY — Counterbores, countersinks, core drills, reamers, etc. The J. C. Glenzer Co., Detroit, Mich.
UTILITY—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
UTILITY—Electric floor machines. The Kent Company, Inc., Rome, N. Y.
UTILITY—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
UTILITY—Tool handles. Hartwell Brothers, Memphis, Tenn.
UTILITY—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
UTILITY WAVE CUT—Files. Wave Cut File & Tool Corp., New York, N. Y.

V

V-A—Paint, metal primer and dryer. American Asphalt Paint Co., Chicago, Ill.
V-B—Balata belt. Victor-Balata & Textile Belting Co., New York, N. Y.
V-G — Lights. National Carbide Sales Corp., New York, N. Y.
V & B — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
V.R.D.—Variable speed drive. Link-Belt Co., Chicago, Ill.
V-FLAT—Star drills for power hammers. The Cincinnati Tool Co., Cincinnati, O.
VACUUM GRIP—Pliers, punches, chisels, and screw drivers. Forged Steel Products Co., Newport, Pa.
VALBESTINE—Valve stem packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
VALDURA—Asphalt aluminum paint and enamelized paint. American Asphalt Paint Co., Chicago, Ill.
VALLEIRON — Transmission equipment. Sprout, Waldron & Co., Inc., Muncy, Pa.
VALLEY FORGE—Packings. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
VALUE—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
VANO—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VAPORITE—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
VARIDRIVE — Motors. U. S. Electrical Mfg. Co., Los Angeles, Calif.
VARI-PITCH — Variable speed texrope drive sheave. Allis-Chalmers Manufacturing Co., West Allis, Wis.
VARI-SPEED—Flexible shaft tool. The Dumore Co., Racine, Wis.
VEELOS—Balata belting, V-belting and balata valves. Manheim Mfg. & Belting Co., Manheim, Pa.
VEELOS V—V belting. Manheim Mfg. & Belting Co., Manheim, Pa.
VELO—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
VELOX—Lubricants. Keystone Lubricating Co., Philadelphia, Pa.
VELVET—Hose. Electric Hose & Rubber Co., Wilmington, Del.
VELVET—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
VELVET—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
VELVET-GRIP—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
VENANGO—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
VENOSTONE—Cement floor primer. The Reardon Co., St. Louis, Mo.
VENTAIR—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VENTEX—First aid equipment. E. D. Bullard Co., San Francisco, Cal.
VENTURA—Blowers. American Blower Corp., Detroit, Mich.
VERITAS—Emery wheel dressers. Sandvik Saw & Tool Corp., Minneapolis, Minn.
VERTEX—Asbestos furnace cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.
VERY BEST—Loom pickers, straps, etc. E. H. Jacobs Manufacturing Co., Danielson, Conn.
VESUVIUS—Oil, gas or combustion burner. Davison Combustion Co., Pittsburgh, Pa.
VESUVIUS—Steam traps. Nason Manufacturing Co., New York, N. Y.
VIBRATOR—Vibrating screens. Stephens-Adamson Mfg. Co., Aurora, Ill.
VICCO—Hand soap. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTOPAC—Compressed asbestos sheet. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTOR—Bolt clippers. Roberts Manufacturing Co., Everett, Mass.
VICTOR—Brine and ammonia pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
VICTOR—Drill rods. Crucible Steel Co. of America, New York, N. Y.
VICTOR—Float traps. Wright-Austin Co., Detroit, Mich.
VICTOR—Cross cut saws. E. C. Atkins and Co., Indianapolis, Ind.
VICTOR—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
VICTOR—Lanterns. R. E. Dietz Co., New York, N. Y.
VICTOR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
VICTOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
VICTOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
VICTOR—Push brooms and brushes. The Joseph Lay Co., Portland, Ind.
VICTOR—Rubber hose. Mulconroy Co., Inc., Philadelphia, Pa.
VICTOR—Steam traps. Wright-Austin Co., Detroit, Mich.
VICTOR—Steel rivets. The Champion Rivet Co., Cleveland, Ohio.
VICTOR—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
VICTOR—Weldless and breast chain. The McKay Co., Pittsburgh, Pa.
VICTOR—Wheelbarrows and drag scrapers. The Case Crane and Kilbourne Jacobs Co., Columbus, Ohio.
VICTOR ACME—Blowers and gas pumps. Roots-Connersville Blower Corp., Connersville, Ind.
VICTORITE—Fibrous sheet packing. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTORY—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
VICTORY—Chain hoists. Sampson Tool Co., Inc., New York, N. Y.
VIGASCO—Gasket cement. Victor Mfg. & Gasket Co., Chicago, Ill.
VIGILANT—Garden hose. Boston, Woven Hose & Rubber Co., Cambridge, Mass.
VIGILANT—Water columns. The Lunkenheimer Co., Cincinnati, Ohio.
VIGO—Leather Belting. Foss & Bump, Inc., Springfield, Mass.
VIKING—Coping saws. Forsberg Mfg. Co., Bridgeport, Conn.
VIKING—Hack saw frames. Forsberg Mfg. Co., Bridgeport, Conn.
VIKING—Hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
VIKING—Screw drivers. Forsberg Mfg. Co., Bridgeport, Conn.
VINCENT-HUNTINGTON—Emery wheel dressers and cutters. Vincent Steel Process Co., Detroit, Mich.
VINDICATOR—Sheet packing. Rhopac Products Corp., Chicago, Ill.
VINTEX—Paint. The Reardon Co., St. Louis, Mo.
VISAFLAME—Safety control. The Mercoid Corp., Chicago, Ill.
VISUVIUS—Gas and oil burners. Davison Combustion Co., Pittsburgh, Pa.
VITALIFE—Wire rope lubricants and protectors. Wire Rope Lubricating Co., Trenton, N. J.
VITALUBE—Penetrating oil. The White & Bagley Co., Worcester, Mass.
VIXEN—Files. Heller Bros. Co., Newark, N. J.
VOLCANO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
VOLUNTEER—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
VORCOLITE—Paint. The Vortex Manufacturing Co., Cleveland, Ohio.
VOSPER—Pipe cutters. The Toledo Pipe Threading Machine Co., Toledo, Ohio.
VOSTA—Loose pulley oiler. The Lunkenheimer Co., Cincinnati, Ohio.
VULCABESTON—Asbestos packing. Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
VULCAN—Anvils, jacks and blacksmiths' tools. Illinois Iron & Bolt Co., Carpentersville, Ill.
VULCAN—Axes, hammers, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
VULCAN—Chain tongs, tool holders and chain pipe vises. J. H. Williams & Co., New York, N. Y.
VULCAN—Electric band saw brazer. Oliver Machinery Co., Grand Rapids, Mich.

VULCAN—Files. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
VULCAN—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
VULCAN—Hose and packing. New York Belting & Packing Co., Passaic, N. J.
VULCAN and **VULCAN SUPERIOR** — Clamps, lathe and milling machine dogs, pipe tongs, vises, eye bolts, hooks, gauges, etc. J. H. Williams & Co., New York, N. Y.
VULCAN—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
VULCANITE KROME—Belting, packing, mechanical leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
VULCANIZER'S SPECIAL—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
VULCOT—Waste baskets. Fibre Specialty Mfg. Co., Kennett Square, Pa.

W

W & B—Screw wrenches. J. H. Williams & Co., New York, N. Y.
W. E. W.—Valves. William E. Williams Valve Corp., New York, N. Y.
W. H. S.—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
W. P. S.—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
W. & McD.—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
W-W.—Cotter pins and automotive assortments. Western Wire Products Co., St. Louis, Mo.
WAIT—Steam turbines. Dean-Hill Pump Co., Anderson, Ind.
WAJAX D D V—Portable fire pumps. Fenwick-Reddaway Mfg. Co., Newark, N. J.
WAL-BOND — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-CAST — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-CHROME — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-PRODUCTS—High temperature cement, etc. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-RAM—Plastic firebrick. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-SET—High temperature cement, etc. The Wahl Refractory Products Co., Fremont, Ohio.
WAL-TITE — High temperature cement. The Wahl Refractory Products Co., Fremont, Ohio.
WALCO—Pipe wrench. Walworth Co., New York, N. Y.
WALDEN WORCESTER—Wrenches. Stevens Walden, Inc., Worcester, Mass.
WALLABOUT — Hose. Hewitt Rubber Corp., Buffalo, N. Y.
WALLCORE — Fibre core construction. Wall Rope Works, Inc., New York, N. Y.
WALRUS—Belting cement. Narragansett Belting Co., Providence, R. I.
WALRUS—Glass oil pumps. The D. T. Williams Valve Co., Cincinnati, Ohio.
WALRUS — Polishing leather. Greene, Tweed & Co., New York, N. Y.
WARDEN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
WARREN—Filers and softeners. American Water Softener Co. (And by purchase New York Continental Jewell Filtration Co.), Philadelphia, Pa.
WARRIOR—Independent sight feeds. The D. T. Williams Valve Co., Cincinnati, O.
WARWICK—Dredge chain, etc. Newhall Chain Forge & Iron Co., New York, N. Y.
WASCO—Forged steel fittings. The Watson-Stillman Co., Roselle, N. J.
WASHITA — Oil stones. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
WASHZUM—Oil soap. The White & Bagley Co., Worcester, Mass.
WASTE METER—Carbon dioxide and temperature recorders. Uehling Instrument Co., Paterson, N. J.
WATCH DOG—Water meters. Worthington-Gamon Meter Co., Harrison, N. J.
WATER OAK—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
WATERIDE BRAND—Waterproof leather belting. F. Raniville Co., Grand Rapids, Mich.
WATERSHED—Belting. J. E. Rhoads & Sons, Philadelphia, Pa.
WATERSNAKE — Hose. Home Rubber Co., Trenton, N. J.
WATROUS—Plumbing valves, liquid soap dispensers, etc. Imperial Brass Manufacturing Co., Chicago, Ill.
WATSON (RUBEROID-WATSON)—Pipe and boiling covering, cement, hair felt and asbestos paper. The Ruberoid Co., New York, N. Y.
WAVERLESS FLAME—Oxygen welding and cutting regulators. K-G Welding & Cutting Co., Inc., New York, N. Y.
WAXTIC—Bar belt dressing for leather and rubber belts. Norton Belting Co., Wellesley Hills, Mass.
WAYNE—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
WE-PU-GO—Water filters and softeners. Wm. B. Scaife & Sons Co., Oakmont, Pa.
WEAR EVER—Drill and tap chucks. Scully-Jones & Co., Chicago, Ill.
WEAR WELL—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
WEARPRUF—Hand leathers. Gross Rubber Co., Sharon, Pa.
WEARSO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
WEARTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
WEB-FACE BAKELITE—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
WEDGBELT—V-belt drives and sheaves. The American Pulley Co., Philadelphia, Pa.
WEDGELOCK—Steel shelving. The Berger Mfg. Co., Canton, Ohio.
WELD-A-CAST—Fluxes. Cortland Welding Compound Co., Cortland, N. Y.
WELD BILT—Lift truck platforms, etc. West Bend Equipment Corp., West Bend, Wis.
WELDA — Lenses. Harry Buegeleisen, Brooklyn, N. Y.
WELDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
WERLIN—Natural gas burners and mixers. Triumph Brass Co., Columbus, O.
WESTAN—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
WESTCOTT—Wrenches. Keystone Mfg. Co., Buffalo, N. Y.
WESTERN—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
WESTERN—Grinders and polishing machines. Cutter Machine Co., St. Louis.
WESTERN—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WESTITE — Metallic packing. Western Packing & Supply Co., Chicago, Ill.
WESTON — Differential hoists. David Round & Son, Cleveland, Ohio.
WETORDRY—Sandpaper. Minnesota Mining & Mfg. Co., St. Paul, Minn.
WETSTONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
WHALE—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
WHALE BRAND—Hack saw blades. The Forsberg Mfg. Co., Bridgeport, Conn.
WHALEBONE—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHEELABRATOR — Sand blasting machines. American Foundry Equipment Co., Mishawaka, Ind.
WHIPCORD—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHIPPET — Leather belting. Johnson Belting Co., New York, N. Y.
WHIRLPOOL—Leather belting. Charles Bond Co., Philadelphia, Pa.
WHIRLWIND—Compressed air purifier. Wright-Austin Co., Detroit, Mich.
WHIRLWIND—Cylinder grinders. Keystone Mfg. Co., Buffalo, N. Y.
WHIRLWIND—Tool grinders. Behr-Manning Corp. (Norton Abrasives), Troy, N. Y.
WHITE—Glass body oil cups. Consolidated Brass Co., Detroit, Mich.
WHITE CROSS—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
WHITE DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
WHITE OAK—Leather belting. Chas. A. Schieren Co., New York, N. Y.
WHITE JACKET—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHITE STAR — Globe, angle, gate and check valves. The Wm. Powell Co., Cincinnati, Ohio.
WHITE STRIP—Leather belting. Chicago Belting Co., Chicago, Ill.
WHITENRED — Wrought conduit pipe. Central Tube Co., Pittsburgh, Pa.
WHITING—Saw sets. The Kilborn and Bishop Co., New Haven, Conn.
WHITNEY LEVER PUNCHES — Hand punches. W. A. Whitney Mfg. Co., Rockford, Ill.
WICO — Ash, garbage and refuse cans. The Witt Cornice Co., Cincinnati, Ohio.
WIL-LITE—Mill white. The Wills Products Co., New York, N. Y.
WILBUR — Fire extinguishers. Wil-X-Mfg. Corp., Brooklyn, N. Y.
WILCO—Pipe and bolt threading machines. Oster-Williams, Cleveland, O.
WILFORD—Flax cloth. The Upson-Walton Co., Cleveland, Ohio.
WILL-CALK-IT—Calking material. The Willis Products Co., New York, N. Y.
WILL-GRAY-IT—Putty. The Wills Products Co. New York, N. Y.
WILLIAMS—Pole mounts. Malleable Iron Fittings Co., Branford, Conn.
WILLIE WILLIAMS — Portable pipe threading machines. Oster-Williams Cleveland, Ohio.
WILLSEMENT — Pipe joint compounds. The Wills Products Co., New York, N. Y.
WILSON—Arc welding machine. Air Reduction Sales Co., New York, N. Y.
WILSON—Belt fasteners. W. O. & M. W. Talcott, Inc., Providence, R. I.
WILSON—Gate valves. Everlasting Valve Co., Jersey City, N. J.
WILSON — Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WILSON—Welding wire and accessories. Peter A. Frasse & Co., Inc., New York.
WIN—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
WINDY—Fans and blowers. Sutorbilt Corp., Los Angeles, Calif.
WINGFOOT—Belting and hose. The Goodyear Tire & Rubber Co., Inc., Akron, O.
WINGO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
WING TYPE—Pulleys. Sprout, Waldron & Co., Inc., Muncy, Pa.
WIRE CLAD—Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
WIRECO—Wire rope. Wire Rope Corp., of America, New Haven, Conn.
WIREGRIP — Belt hooks. Armstrong-Bray & Co., Chicago, Ill.
WISOLD—Sheet packing and pump valves. Consolidated Packing & Supply Co., New York, N. Y.
WISSCO—Wire. Wickwire Spencer Steel Co., New York, N. Y.
WIXOM—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WIZARD—Belt dressing. Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
WIZARD — Belting hose and packing. Hamilton Rubber Mfg. Co., Trenton, N.J.
WIZARD—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WIZARD JUNIOR—Tape-rules. The Lufkin Rule Co., Saginaw, Mich.
WM. PENN—Manila rope. The Edwin H. Fitler Co., Philadelphia, Pa.
WOLF—Hose couplings. Boston Woven Hose & Rubber Co., Cambridge, Mass.
WOLF—Portable timber sawing machines. Reed-Prentice Corp., Worcester, Mass.
WOLF—Safety lamps. Mine Safety Appliances Co., Pittsburgh, Pa.
WOLVERINE—Lubricators. Essex Brass Corp., Detroit, Mich.
WOLVERINE — Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WOLVERINE — Wheelbarrows. Lansing Co., Lansing, Mich.
WOMPCO — Ferrous alloy. Worthington Pump and Machinery Corp., Harrison, N. J.
WONDER—Concrete mixers. Construction Machinery Co., Waterloo, Iowa.
WONDER—Gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WONDERTAN—Leather belting. F. W. McLanathan & Son, Lawrence, Mass.
WOODCUT—Lintersaw gummer files. The A. C. Wood & Sons Co., Atlanta, Ga.
WOODPECKER—Air vibrators. Sutorbilt Corp., Los Angeles, Calif.
WOOSTER—Belting. Duryea Manufacturing Co., Bayonne, N. J.
WORCESTER—Gauge glass cutters and flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WORKACE—Woodworking machinery. J. D. Wallace & Co., Chicago, Ill.
WORKWELL—Sifter brush belting and brushes. Victor Balata & Textile Belting Co., New York, N. Y.
WORLD—Belting and hose. Home Rubber Co., Trenton, N. J.
WORRALL—Pulley clutches and cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
WORTHY—Sight feed gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, Ohio.
WYANDOT—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WYNN—Fire clay, brick. General Refractories Co., Philadelphia, Pa.

X

X-TRACK-TOR—Car unloaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
X F SWISS PATTERN—Files. Nicholson File Co., Providence, R. I.
XL BRAND—Mechanical leathers, hydraulic packings; leather, fibre, felt and composition washers. Excelsior Leather Washer Mfg. Co., Rockford, Ill.
XL DOUBLE TANNED—Leather belting, cups and flanges. Detroit Oak Belting Co., Detroit, Mich.

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XL WATERPROOF—Leather belting and packings. Detroit Oak Belting Co., Detroit, Mich.

XLNC—Dressings. Commercial Chemical Co., Boston, Mass.

X-RAY—Flood lights. Curtis Lighting, Inc., Chicago, Ill.

XX—Dredge chain. The McKay Co., Pittsburgh, Pa.

XX—Hose, packing, matting and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

XXCY—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.

XXXX NICKEL—Babbitt metal. Federated Metals Corp., New York, N. Y.

XACTO—Displacement meters for gasoline and oils. S. F. Bowser & Co., Fort Wayne, Ind.

Y

YANKEE—Carpenters' and mechanics' tools. North Bros. Mfg. Co., Philadelphia, Pa.

YANKEE—Drill grinders. Covel-Hanchett Co., Big Rapids, Mich.

YANKEE B—Stone drills. The Dallett Co., Philadelphia, Pa.

YARWAY—Valves, spray nozzles, water columns, gauges, expansion joints, etc. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

YELLOW LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.

YELLOW STRAND—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.

YEOMAN—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.

YUKON—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.

Z

ZAM—Plating anodes. Hanson-Van Winkle-Munning Co., Matawan, N. J.

Z METAL—Chain and castings. Chain Belt Co., Milwaukee, Wis.

ZENEL—Wrenches and tools. Bonney Forge and Tool Works, Allentown, Pa.

ZENITH—Lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.

ZENITH—Pump valves. Rhopac Products Corp., Chicago, Ill.

ZERING—Factory and warehouse trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.

ZERO—Sight feed lubricators. Detroit Lubricator Co., Detroit, Mich.

ZULU—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

NAMES AND ADDRESSES

of Manufacturers of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools Whose Products are Shown in the Classified List.

IN this section are arranged alphabetically the names of manufacturers of mill, mine, power and general industrial supplies, equipment and tools whose products are listed in the Classified List together with their addresses. Only one address is given for each company, that being its main or general sales office, or the one otherwise specified by the company.

Disregard individuals' initials or the word "The" in locating the name of a manufacturer. The name of a company such as D. B. Gorboud & Co., would be listed "Gorboud, D. B., & Co." Where the prefix "The" is used, a company is listed as follows: "Morgan Co., The." Where initials form the main part of a name, as, for instance, "B. & R. Pipe Co.," the names of such companies are grouped with others of a similar type at the start of listings appearing under the first initial. For instance, "B. & R. Pipe Co." would be found among the first few names appearing under "B".

For convenience, we have generally used "Co." instead of "Company" and "Corp." instead of "Corporation," regardless of whether the company or corporation spells out the word. Similarly, we use "Inc." uniformly instead of "Incorporated."

A

Abrasive Co. Division of Simonds Saw and Steel Co., Tacony & Fraley Sts., Philadelphia, Pa.
Ace Drill Co., 13835 Jennings St., Detroit, Mich.
Acheson Manufacturing Co., Fleet St. & P. & L. E. R. R., Rankin, Pa.
Acme Asbestos Covering & Flooring Co., 1301 Fulton St., Chicago, Ill.
Acme Machine Products Co., 500 W. Willard St., Muncie, Ind.
Acme Steel Co., 2824 Archer Ave., Chicago, Ill.
Adams Grease Gun Corp., 54-62 West 21st St., New York, N. Y.
Adjustable Clamp Co., 413 N. Ashland Ave., Chicago, Ill.
Advance Car Mover Co., Inc., 112 N. Outagamie St., P. O. Box 536, Appleton, Wis.
Advance Packing & Supply Co., 808 Washington Blvd., Chicago, Ill.
Aeroil Burner Co., Inc., 561 Park Ave., West New York, N. J.
Ahlberg Bearing Co., 317-21 E. 29th St., Chicago, Ill.
Air Reduction Sales Co., 60 East 42nd St., New York, N. Y.
Air-Way Pump Co., 625 W. Jackson Blvd., Chicago, Ill.
Akron Metallic Gasket Co., 189 N. Union St., Akron, Ohio.
Aldon Co., The, 3338 Ravenswood Ave., Chicago, Ill.
Alemite Corp., 1826 Diversey Parkway, Chicago, Ill.
Alexander Brothers, Inc., 406 N. Third St., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Third & Huntington Sts., Philadelphia, Pa.
Allen & Billmyre Co., Inc., 814 Grand Central Palace, New York, N. Y.
Allen Mfg. Co., The, 133 Sheldon St., Hartford, Conn.
Allen, W. D., Mfg. Co., 566 W. Lake St., Chicago, Ill.
Allentown Leather Belting Co., 722 Linden St., Allentown, Pa.
Allis-Chalmers Manufacturing Co., 1126 S. 70th St., West Allis, Wis.
Allis, Louis, Co., The, 427 E. Stewart St., Milwaukee, Wis.
Alloy Steel Division of Republic Steel Corp., Massillon, Ohio.
All-Steel-Equip Co., Inc., 607 John St., Aurora, Ill.
Almond, T. C., Inc., Ashburnham, Mass.
Aluminum Company of America, Gulf Bldg., Pittsburgh, Pa.
Aluminum Industries, Inc., 2416 Beekman St., Cincinnati, Ohio.
Alvord-Polk Tool Co., 110-175 Gerhard St., Millersburg, Pa.
American Air Filter Co., Inc., First and Central Ave., Louisville, Ky.
American Asphalt Paint Co., 43 E. Ohio St., Chicago, Ill.
American Blower Corp., 6000 Russell St., Detroit, Mich.
American Brake Materials Corp., 4660 Merritt Ave., Detroit, Mich.
American Brass Co., The, American Metal Hose Branch, P. O. Box 791, Waterbury, Conn.
American Cable Co., Inc., Wilkes-Barre, Pa.
American Cap & Set Screw Co., Waukegan, Ill.
American Car and Foundry Co., 30 Church St., New York, N. Y.
American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
American Die & Tool Co., Inc., 211 Buttonwood St., Reading, Pa.
American Emery & Stone Co., 22 Warren St., New York, N. Y.
American Engineering Co., 2436 Aramingo Ave., Philadelphia, Pa.
American Filter Co., 655-665 Buffum St., Milwaukee, Wis.
American Fire Hose Co., 1500 Walnut St., Philadelphia, Pa.
American Fork & Hoe Co., Cleveland, Ohio.
American Foundry & Mfg. Co., 11th and Hebert St., St. Louis, Mo.
American Foundry Equipment Co., 700 Byrkit St., Mishawaka, Ind.
American Handle Co., P. O. Box 186, Jonesboro, Ark.
American Hoist & Derrick Co., 63 S. Robert St., St. Paul, Minn.
American Injector Co., 1481 14th St., Detroit, Mich.
American-LaFrance and Foamite Corp., 100 E. LaFrance St., Elmira, N. Y.
American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.
American Metal Hose Branch of The American Brass Co., 67 Jewelry St., Waterbury, Conn.
American Non-Gran Bronze Corp., Lincoln Highway, Berwyn, Pa.
American Nut & Bolt Fastener Co., 2029-2045 Doerr St., Pittsburgh, Pa.
American Optical Co., Southbridge, Mass.
American Pulley Co., The, 4200 Wissahickon Ave., Philadelphia, Pa.
American Roller Bearing Co., 416 Melwood Ave., Pittsburgh, Pa.
American Rolling Mill Co., The, Curtis St., Middletown, O.
American Sand-Banum Co., Inc., 342 Madison Ave., New York, N. Y.
American Sanitary Rag Co., 1001 W. North Ave., Chicago, Ill.
American Saw & Mfg. Co., 67 Boylston St., Springfield, Mass.
American Screw Co., 21 Stevens St., Providence, R. I.
American Solder & Flux Co., Wayne Ave. & Berkley, Philadelphia, Pa.
American Stamping Co., Battle Creek, Mich.
American Steam Pump Co., Battle Creek, Mich.
American Steel Scraper Co., The, Wilkinson & Court Sts., Sidney, Ohio.
American Steel & Wire Co., 208 S. La Salle St., Chicago, Ill.
American Steel Wool Mfg. Co., Inc., 9-13 Desbrosses St., New York, N. Y.
American Swiss File & Tool Co., 410 Trumbull St., Elizabeth, N. J.
Ames, B. C., Co., Off Lexington St., Waltham, Mass.
Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Ampco Metal, Inc., 3830 W. Burnham St., Milwaukee, Wis.
Amthor Testing Instrument Co., Inc., 309 Johnson St., Brooklyn, N. Y.
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.
Anderson Bros. Mfg. Co., 1907 Kishwaukee St., Rockford, Ill.
Anderson, V. D., Co., The, 1935 W. 96th St., Cleveland, Ohio.
Angle Steel Stool Co., Plainwell, Mich.
Anthes Force Oiler Co., 20th & Avenue M, Fort Madison, Iowa.
Anti-Borax Compound Co., 1506 Wall St., Fort Wayne, Ind.
Appleton-Atlas Car Mover Corp., 2947 N. 30th St., Milwaukee, Wis.
Appleton Electric Co., 1701-29 Wellington Ave., Chicago, Ill.
Arcos, Inc., 401 North Broad St., Philadelphia, Pa.
Arguto Oilless Bearing Co., 149 Berkley St., Wayne Junction, Philadelphia, Pa.
Armour Sand Paper Works, 1355 W. 31st St., Chicago, Ill.
Armstrong-Blum Mfg. Co., 339 N. Francisco Ave., Chicago, Ill.

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Armstrong-Bray & Co., 308 Sheldon St., Chicago, Ill.
Armstrong Bros. Tool Co., 332 N. Francisco Ave., Chicago, Ill.
Armstrong Cork Products Co., Lancaster, Pa.
Armstrong Machine Works, 816 Maple St., Three Rivers, Mich.
Armstrong Manufacturing Co., 304 Knowlton St., Bridgeport, Conn.
Armstrong Truck Co., North Wales, Pa.
Arro Expansion Bolt Co., Marion, Ohio.
Arrow Boiler Compound Co., 13 S. 1st St., St. Louis, Mo.
Art Metal Construction Co., Jamestown, N. Y.
Asbestos Mfg. Co., P. O. Box 190, Huntington, Ind.
Asch & Co., Inc., 117 West 63rd St., New York, N. Y.
Athol Machine & Foundry Co., 82 South St., Athol, Mass.
Atkins, E. C., and Co., 420 S. Illinois St., Indianapolis, Ind.
Atlantic Manufacturing Co., 104 Walnut St., Wilmington, Del.
Atlantic Metal Hose Co., Inc., 123 West 64th St., New York, N. Y.
Atlantic Screw Works, Hartford, Conn.
Atlas-Ansonia Co., 54-62 Grant St., New Haven, Conn.
Atlas Ball Co., Glenwood Ave. and American St., Philadelphia, Pa.
Atlas Bolt & Screw Co., The, 1130 Ivanhoe Rd., Cleveland, Ohio.
Atlas Brass Foundry Co., The, 1000 S. Front St., Columbus, Ohio.
Atlas Leather Co., Caseyville, Ill.
Atlas Press Co., 1849 Pitcher St., Kalamazoo, Mich.
Atlas Tack Corp., Fairhaven, Mass.
Auburn Ball Bearing Co., 75 Clarissa St., Rochester, N. Y.
Auburn Manufacturing Co., 14 Sigourney St., Hartford, Conn.
Aurora Pump Co., 619 Loucks St., Aurora, Ill.
Aurora Steel Products Co., 150 3rd St., Aurora, Ill.
Automatic Primer Co., 111 W. Washington St., Chicago, Ill.
Autovent Fan & Blower Co., 1805 N. Kostner Ave., Chicago, Ill.
Avey Drilling Machine Co., The, Cincinnati, Ohio.
Axelson Manufacturing Co., Ltd., 6160 S. Boyle Ave., Los Angeles, Calif.

B

Babbitt Steam Specialty Co., 55 S. Water St., New Bedford, Mass.
Babcock, W. W., Co., The, 15 Delaware St., Bath, N. Y.
Bache, Semon, & Co., 636 Greenwich St., New York, N. Y.
Badger Fire Extinguisher Co., 31 St. James Ave., Boston, Mass.
Baird Machine Co., The, Bridgeport, Conn.
Baker Brothers, Inc., Post St., Toledo, Ohio.
Baker-Hansen Mfg. Co., 1900-1912 Park St., Alameda, Calif.
Baldor Electric Co., 4352-64 Duncan Ave., St. Louis, Mo.
Baldwin Belting & Leather Co., Inc., 85 Chambers St., New York, N. Y.
Baldwin-Duckworth Chain Corp., 369 Plainfield St., Springfield, Mass.
Baltimore Belting Co., 23 and 25 South Gay St., Baltimore Md.
Baltimore Valve Corp., 2300 Sinclair Lane, Baltimore, Md.
Bantam Ball and Roller Bearing Co., 3701 West Sample St., South Bend, Ind.
Barber Asphalt Co., The, 1600 Arch St., Philadelphia, Pa.
Barber-Colman Co., Loomis St., Rockford, Ill.
Barcalo Mfg. Co., 225 Louisiana St., Buffalo, N. Y.
Barco Manufacturing Co., 1801 Winnemac Ave., Chicago, Ill.
Barnes Drill Co., 850 Chestnut St., Rockford, Ill.
Barnes, W. F. & John, Co., 301 S. Water St., Rockford, Ill.
Barnes, W. O., Co., Inc, 1297 Terminal Ave., Detroit, Mich.
Barrett Co., The, 40 Rector St., New York, N.Y.
Barrett-Cravens Co., 3250 W. 30th St., Chicago, Ill.
Barrett, Leon J., Co., The, Box 378, Worcester, Mass.
Barrett, Wm. L., Co., 30 School St., Bristol, Conn.
Bartlett, Edwin E., Co., 41 Crown St., Nashua, N. H.
Bartlett Hayward Co., The, 200 Scott St., Baltimore, Md.
Bartlett Manufacturing Co., 3023 East Grand Blvd., Detroit, Mich.
Barton, H. H., & Son Company, Drawer No. 74, Troy, N. Y.
Bassick Co., The, 38 Austin St., Bridgeport, Conn.
Bastian-Blessing Co., 240 E. Ontario St., Chicago, Ill.
Bastian-Morley Co., Truesdell Ave., Laporte, Ind.
Batavia Clamp Co., Inc., Batavia, N. Y.
Bate Boiler Efficiency Co., Elm & Sansom Sts., Conshohocken, Pa.
Bath, John, & Co., Inc., 18 Grafton St., Worcester, Mass.
Bauer Manufacturing Co., The, 1429 E. Bowman St., Wooster, Ohio.
Baum's Castorine Co., 200 Mathew St., Rome, N. Y.
Bay State Emery Wheel Co., Not Inc., 54 Hermon St., Worcester, Mass.
Bay State Stamping Co., 380 Chandler St., Worcester, Mass.
Bay State Tap & Die Co., 75 Chauncy St., Mansfield, Mass.
Beach Mfg. Co., Mill & High Sts., Montrose, Pa.
Beall Tool Co., P. O. Drawer 38, East Alton, Ill.
Bearium Metals Corporation, 258 State St., Rochester, N. Y.
Beaumont, R. H., Co., 319 Arch St., Philadelphia, Pa.
Beaver Pipe Tools, Inc., 310 Dana St., Warren, Ohio.
Beck, Wm. and Chas., Lawrence, Mass.
Beckley Perforating Co., North Ave., Garwood, N. J.
Beebe Bros., 2724 Sixth Ave., S., Seattle, Wash.
Behr-Manning Corp., Troy, N. Y.
Belden Machine Co., The, Whalley & West Rock Ave., New Haven, Conn.
Belfield, H., Co., 435 N. Broad St., Philadelphia, Pa.
Belleville Wire Cloth Co., 139 Little St., Belleville, N. J.
Bellevue Industrial Furnace Co., 2971 Bellevue Ave., Detroit, Mich.
Belmont Packing & Rubber Co., The, Butler & Sepviva St., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., 310 Belmont Ave., Brooklyn, N. Y.
Beltonic Products Co., N. Leclaire & Moffat St., Cragin Station, Chicago, Ill.
Bemis & Call Co., 125 Main, Springfield, Mass.
Bendix Products Corporation, South Bend, Ind.
Benjamin Electric Manufacturing Co., Northwest Highway & Seegers Rd., Des Plaines, Ill.
Benson, Alexander R., Co., Inc., 1070 South Bay Road, Hudson, N. Y.
Berbecker, Julius, & Sons, Inc., 15 E. 26th St., New York, N. Y.
Berger Manufacturing Co. (Subsidiary of Republic Steel Corporation), 1038 Belden Ave., N. E., Canton, Ohio.
Bergman Tool Mfg. Co., 1573-75 Niagara St., Buffalo, N. Y.
Bernard, Charles A., Machine Co., 210 Main St., Gardner, Mass.
Bernz, Otto, Co., Inc., 280 Lyell Ave., Rochester, N. Y.
Besly, Charles H., and Co., 118 N. Clinton St., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Bickford, H., & Co., 1002 Union Ave., Lakeport, N. H.
Billings & Spencer Co., The, 1 Laurel St., Hartford, Conn.
Binks Manufacturing Co., 3114-40 Carroll Ave., Chicago, Ill.
Bishop & Babcock Sales Co., The, 4901-4915 Hamilton Ave., N. E., Cleveland, Ohio.
Black & Decker Mfg. Co., The, 600 E. Pennsylvania Ave., Towson, Md.
Black Diamond Paint & Varnish Works, Inc., The, 1209-1217 Bank St., Cincinnati.
Blacker Engineering Corp., 123 Liberty St., New York, N. Y.
Blackhawk Mfg. Co., 120 N. Broadway, Milwaukee, Wis.
Blackmer Pump Co., 1809 Century Ave., S. W., Grand Rapids, Mich.
Blaw-Knox Co., Pittsburgh, Pa.
Bliss & Laughlin, Inc., 155th St., Harvey, Ill.
Blount, J. G., Co., Woodland St., Everett, Mass.
Blue Seal Chemical Co., 177-179 W. Westfield Ave., Roselle Park, N. J.
Boekel, Wm., & Co., 509-19 Vine St., Philadelphia, Pa.
Boice, W. B. & J. E., 1730 Norwood Ave., Toledo, Ohio.
Bond, Charles, Co., 617 Arch St., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Bonner & Barnewall, Inc., 92 Bleecker St., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Booth Felt Co., Inc., The, 463 19th St., Brooklyn, N. Y.
Bordo, L. J., Co., Inc., 115 New St., Glenside, Pa.
Boss Bolt & Nut Co., 3403 W. 47th St., Chicago, Ill.
Boston Gear Works, Inc., North Quincy, Mass.
Boston & Lockport Block Co., 102 Conder St., East Boston, Mass.
Boston Woven Hose & Rubber Co., 29 Hampshire St., Cambridge, Mass.
Botfield Refractories Co., Swanson and Clymer Sts., Philadelphia, Pa.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Bousman Mfg. Co., 1157-9 Plainfield Ave., N. E., Grand Rapids, Mich.
Bowser, S. F., & Co., Fort Wayne, Ind.
Boyer Fire Apparatus Co., Logansport, Ind.
Bradlee & Co., Inc., 1615 N. Delaware Ave., Philadelphia, Pa.
Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee, Wis.
Braender Drainer Co., Inc., The, 439 4th Ave., New York, N. Y.
Breeze Corporations, Inc., 24 S. 6th St., Newark, N. J.
Breuer Electric Manufacturing Co., 852 Blackhawk St., Chicago, Ill.
Bridgeport Hdwe. Mfg. Corp., The, 461 Iranistan Ave., Bridgeport, Conn.
Bridgeport Screw Co., Bridgeport, Conn.
Briggs & Stanton Corp., 2711 N. 13th St., Milwaukee, Wis.
Bristol Brass Corp., The, 101 Broad St., Bristol, Conn.
Bristol Co., The, Waterbury, Conn.
Broderick & Bascom Rope Co., 4203 N. Union Blvd., St. Louis, Mo.
Brohard Co., The, State Rd. & Shelmire St., Philadelphia, Pa.
Brooklyn Rawhide Mfg. Co., 434 Manhattan Ave., Brooklyn, N. Y.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., 259-261 North Lawrence St., Philadelphia, Pa.
Brown Engineering Co., 123 N. 3rd St., Reading, Pa.
Brown Instrument Co., The, Wayne & Roberts Aves., Philadelphia, Pa.
Brown, R. H., & Co., 170 Wood St., New Haven, Conn.
Brown & Sharpe Mfg. Co., 235 Promenade St., Providence, R. I.
Brownie Manufacturing Co., Inc., 2921-2923 Pennsylvania St., Fort Wayne, Ind.
Brunner Manufacturing Co., Broad & Gilbert Sts., Utica, N. Y.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Buchanan, C. G., Chemical Co., 4640 Baker Ave., Norwood, Cincinnati, Ohio.
Buckeye Brass & Mfg. Co., The, 6410 Hawthorne Ave., Cleveland, Ohio.
Buckeye Portable Tool Co., The, 29 W. Apple St., Dayton, Ohio.
Buegeleisen, Harry, 257 Fulton St., Brooklyn, N. Y.
Buffalo Batt & Felt Corp., Ellicott Rd., Depew, N. Y.
Buffalo Belting Works, 18 Ellicott St., Buffalo, N. Y.
Buffalo Bolt Co., North Tonawanda, N. Y.
Buffalo Forge Co., 490 Broadway, Buffalo, N. Y.
Buffalo Foundry & Machine Co., 1543 Fillmore Ave., Buffalo, N. Y.
Buffalo Meter Co., 2912 Main St., Buffalo, N. Y.
Buffalo Nipple & Machine Co., Inc., 335 Glenwood Ave., Buffalo, N. Y.
Buffalo Wire Works Co., Inc., 589 Terrace, Buffalo, N. Y.
Bullard, E. D., Co., 275 8th St., San Francisco, Cal.
Bunting Brass & Bronze Co., 715 Spencer St., Toledo, Ohio.
Burgess Battery Co., Freeport, Ill.
Burke Machine Tool Co., The, 297 E. 16th St., Conneaut, Ohio.
Burning Brand Co., 1400 W. Fulton St., Chicago, Ill.
Burnley Battery Mfg. Co., Clay St., North East, Pa.
Burr, John T., & Son, 429 Kent Ave., Brooklyn, N. Y.
Burrell Belting Co., 413 S. Hermitage Ave., Chicago, Ill.
Burrows, F. A., Mfg. Co., 1638 York St., York, Pa.
Burt Manufacturing Co., The, 44½ South St., Akron, Ohio.
Business Men's Paper Press Co., Wayland, Mich.
Bussmann Mfg. Co., University at Jefferson, St. Louis, Mo.
Butcher & Hart Mfg. Co., 1130 Nebraska Ave., Toledo, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Byers, A. M., Company, Clark Bldg., Pittsburgh, Pa.

C

C-O-Two Fire Equipment Co., 560 Belmont Ave., Newark, N. J.
Cactus Mat & Patch Mfg. Co., 453 Commercial St., Los Angeles, Calif.
Calder, Geo. H., Co., 628 N. Prince St., Lancaster, Pa.
California Screw Co., 74 Clementina St., San Francisco, Calif.
California Tanning Co., 1905-7-9 Shenandoah Ave., St. Louis, Mo.

Campbell, Andrew C., Division of American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Campbell-Hausfeld Co., The, Harrison, O.
Cambridge Wire Cloth Co., 1313 Washington St., Cambridge, Md.
Canedy-Otto Mfg. Co., Main St. & East End Ave., Chicago Heights, Ill.
Canfield, M. C., Sons Co., 93 Wilsey St., Newark, N. J.
Cannon Oiler Co., Keithsburg, Ill.
Canton Culvert Division of Republic Steel Corp., Canton, Ohio.
Canton Foundry & Machine Co., The, Dime Savings Bank Bldg., Canton, Ohio.
Capen Belting & Rubber Co., 1920 Washington Ave., St. Louis, Mo.
Capitol Brass Division, Bohn Aluminum & Brass Corp., 2306 Franklin St., Detroit, Mich.
Carboloy Co., Inc., 2481 East Grand Blvd., Detroit, Mich.
Carbondale Machine Corp., Worthington Ave., Harrison, N. J.
Carborundum Co., Niagara Falls, N. Y.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Rumford Ave., Mansfield, Mass.
Cardwell Machine Co., The, 1901 E. Franklin St., Richmond, Va.
Carey, Philip, Co., The, Wayne Ave., Lockland, Ohio.
Carnegie-Illinois Steel Corp, 434 Fifth Ave., Pittsburgh, Pa.
Carolus Manufacturing Co., P. O. Box 417, Sterling, Ill.
Carpenter, J. M., Tap & Die Co., 2108 W. Fort St., Detroit, Mich.
Carroll Chain Co., The, 265 Nosack St., Columbus, Ohio.
Carson-Newton Co., 21-23 Prospect St., Newark, N. J.
Carter Paint Co., Liberty, Ind.
Case, J. R., Mfg. Co., Inc., 207 Bridge St., Jonesboro, Ark.
Case Crane & Kilbourne Jacobs Co., The, Lincoln and Fourth Sts., Columbus, Ohio.
Cash, A. W., Valve Mfg. Co., 600-616 N. Water St., Decatur, Ill.
Central Automatic Sprinkler Co., 247 E. Ashmead St., Philadelphia, Pa.
Central Forging Co., The, Mill St., Catawissa, Pa.
Central Rubber & Supply Co., 120 S. Meridian, Indianapolis, Ind.
Central Steel and Wire Co., 4545 S. Western Blvd., Chicago, Ill.
Central Tube Co., First National Bank Bldg., Pittsburgh, Pa.
Central Valve Mfg. Co., 231 E. 95th St., Chicago, Ill.
Century Electric Co., 1806 Pine St., St. Louis, Mo.
Chadwick & Trefethen, 32 Bow St., Portsmouth, N. H.
Chain Belt Co., 1622 W. Bruce St., Milwaukee, Wis.
Chain Products Co., The, 3924 Cooper Ave., Cleveland, Ohio.
Champion Blower & Forge Co., Charlotte St. & Harrisburg Pike, Lancaster, Pa.
Champion Lamp Works, 600 Broad St., Lynn, Mass.
Champion Manufacturing Co., 7332-48 Kimbark Ave., Chicago, Ill.
Champion Pneumatic Machinery Co., 8164 S. Chicago Ave., Chicago, Ill.
Champion Rivet Co., Harvard & E. 108th Sts., Cleveland, Ohio.
Chandler Products Corp., 1491 Chardon Rd., Cleveland, Ohio.
Channon, J. H., Corp., 1447 W. Austin Ave., Chicago, Ill.
Chapin, R. E., Mfg. Works, The, 29 Liberty St., Batavia, N. Y.
Chapin, W. R., Co., The, P. O. Box 692, Indianapolis, Ind.
Chapman Bearing & Engineering Co., 1050 Military Rd., Buffalo, N. Y.
Chase Brass & Copper Co., 236 Grand St., Waterbury, Conn.
Chase Foundry & Mfg. Co., The, 2715 Parsons Ave., Columbus, Ohio.
Chattanooga Machinery Co., Bennett Ave. & Watkins Sts., Chattanooga, Tenn.
Chattanooga Saw Works, 1512 William St., Chattanooga, Tenn.
Chattanooga Wheelbarrow Co., 1311 E. Main St., Chattanooga, Tenn.
Chesapeake Belting Co., 834 Harford Ave., Baltimore, Md.
Chesterton, A. W., Co., 64 India St., Boston, Mass.
Chicago Belting Co., 113-125 N. Green St., Chicago, Ill.
Chicago Die Casting Mfg. Co., 2510 W. Monroe St., Chicago, Ill.
Chicago Engineer Supply Co., 116 W. Illinois St., Chicago, Ill.
Chicago Expansion Bolt Co., 126 S. Clinton St., Chicago, Ill.
Chicago Eye Shield Co., 2304 Warren Blvd., Chicago, Ill.
Chicago Nipple Mfg. Co., 1966 Southport Ave., Chicago, Ill.
Chicago Pipethread Machine Co., Racine, Wis.
Chicago Pneumatic Tool Co., 6 E. 44th St., New York, N. Y.
Chicago Pulley & Shafting Co., 23 N. Desplaines St., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, 1286 Elston Ave., Chicago, Ill.
Chicago Screw Co., The, 1026 S. Homan Ave., Chicago, Ill.
Chicago Tool & Engineering Co., 8389 S. Chicago Ave., Chicago, Ill.
Chicago Tubing & Braiding Co., 1315 S. Third Ave., Maywood, Ill.
Chicago Watchman's Clock Co., 1526 S. Wabash Ave., Chicago, Ill.
Chicago Wheel & Mfg. Co., 112 S. Aberdeen St., Chicago, Ill.
Chisholm-Moore Hoist Corp., Fremont Ave., Tonawanda, N. Y.
Cincinnati Electrical Tool Co., The, Madison & Edwards Roads, Cincinnati, Ohio.
Cincinnati Lathe & Tool Co., The, 3207 Disney St., Oakley, Cincinnati, Ohio.
Cincinnati Rubber Mfg. Co., The, Franklin Ave. & B. & O. R. R., Norwood, Cincinnati, Ohio.
Cincinnati Specialty Mfg. Co., Inc., 1907 Powers St., Cincinnati, Ohio.
Cincinnati Tool Co., The, Montgomery Ave., Cincinnati, Ohio.
Clamps, Inc., 341 39th St., Brooklyn, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Clark, James, Jr., Electric Co., 600 E. Bergman St., Louisville, Ky.
Clark Equipment Co., Buchanan, Mich.
Clark Manufacturing Co., The, 110 Turner St., Philadelphia, Pa.
Clayton & Lambert Mfg. Co., 1111 French Rd., Detroit, Mich.
Clements Mfg. Co., 6650 S. Narragansett Ave., Chicago, Ill.
Clemson Bros., Inc., 22 Cottage St., Middletown, N. Y.
Cleveland Blow Pipe & Mfg. Co., The, 6505 Cedar Ave., Cleveland, Ohio.
Cleveland Cap Screw Co., 2927 E. 79th St., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, P. O. Sta. D.—Stop 3, ABC, Cleveland, Ohio.
Cleveland Container Co., The, 10630 Berea Rd., Cleveland, Ohio.
Cleveland File Co., The, 3400 Hamilton Ave., Cleveland, Ohio.
Cleveland Graphite Bronze Co., The, 880 East 72nd St., Cleveland, Ohio.
Cleveland Rock Drill Co., The, 3734 E. 78th St., Cleveland, Ohio.
Cleveland Twist Drill Co., The, 1242-1264 E. 49th St., Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cuyahoga & West 4th Sts., Cleveland, O.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), 3300 W. 58th St., Cleveland, Ohio.
Cling-Surface Co., 1017 Niagara St., Buffalo, N. Y.
Clipper Belt Lacer Co., 974-1042 Front Ave., N. W., Grand Rapids, Mich.
Clizbe Bros. Mfg. Co., Harrison & Place Sts., Plymouth, Ind.
Clopp, Geo. B., Iron Works, 3717 Filbert St., Philadelphia, Pa.
Clover Mfg. Co., 327 Main St., Norwalk, Conn.
Clow, James B., & Sons, 201-299 N. Talman Ave., Chicago, Ill.
Coe Manufacturing Co., The, Bank St., Painesville, Ohio.
Coffing Hoist Co., 319 E. Van Buren St., Danville, Ill.
Colebrook's, W. H., Sons, Inc., 1419 S. McBride St., Syracuse, N. Y.
Coleman, Allan J., 116 W. Illinois St., Chicago, Ill.
Colladay Machine Works, 124 W. Venango St., Philadelphia, Pa.
Collins Co., The, Collinsville, Conn.
Collis Co., The, Clinton, Iowa.
Collmer Bros., 114 Lincoln Way E, South Bend, Ind.
Colmonoy, Inc., P. O. Box 977, Los Nietos, Calif.
Colorado Sanitary Wiping Cloth Co., 2637-41 W. 13th Ave., Denver, Colo.
Colson Corp., The, 361 Cedar St., Elyria, Ohio.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Colton, Arthur, Co., 2600 E. Jefferson Ave., Detroit, Mich.
Columbia Steel Co., 235 Montgomery St., San Francisco, Cal.
Columbian Rope Co., Genesee St., Auburn, N. Y.
Columbian Vise & Mfg. Co., The, 9021 Bessemer Ave., Cleveland, Ohio.
Columbus Anvil & Forging Co., The, 123 W. Frankfort St., Columbus, Ohio.
Columbus Bolt Works Co., The, 291 North Water St., Columbus, Ohio.
Columbus McKinnon Chain Corp., Fremont & Fillmore Sts., Tonawanda, N. Y.
Commercial Chemical Co., 235 Medford St., Boston, Mass.
Commercial Diamond Co., 354 E. Congress St., Detroit, Mich.
Commonwealth Brass Corp., 5781-5835 Commonwealth Ave., Detroit, Mich.
Compton, W. H., Shear Co., The, 314-320 Camden St., Newark, N. J.
Conco Engineering Works, Mendota, Ill.
Concrete Surfacing Machinery Co., The, 4667-69 Spring Grove Ave., Cincinnati, O.
Congress Tool & Die Co., 8214 Collins Ave., Detroit, Mich.
Connor, Miles A., 100 High St., Lockport, N. Y.
Connors, Wm., Paint Mfg. Co., The, 669-685 River St., Troy, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Summit Ave. and the R. R., Detroit, Mich.
Consolidated Instrument Co. of America, Inc., 4 N. Central Ave., Baltimore, Md.
Consolidated Iron-Steel Mfg. Co., 1290 East 53rd St., Cleveland, Ohio.
Consolidated Metals Corp., 5531-5535 Woodward Ave., Detroit, Mich.
Construction Machinery Co., Waterloo, Ia.
Continental-Diamond Fibre Co., Newark, Del.
Continental Screw Co., Mt. Pleasant & Hathaway Rd., New Bedford, Mass.
Conway Clutch Co., The, 1543 Queen City Ave., Cincinnati, Ohio.
Cook, C. Lee, Manufacturing Co., Inc., 918 S. Eighth St., Louisville, Ky.
Cook, H. N., Belting Co., 401 Howard St., San Francisco, Calif.
Cook & Riley, Inc., 1300 N. Halsted St., Chicago, Ill.
Cook's, Adam, Sons, Inc., Stiles St. & Elizabeth Ave., Linden, N. J.
Coppus Engineering Corp., 344 Park Ave., Worcester, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Cordley & Hayes, 139-149 Hudson St., New York, N. Y.
Corley Co., The, 629 Grove St., Jersey City, N. J.
Corning Glass Works, P. O. Box 544, Corning, N. Y.
Corr, Patrick, & Sons, Inc., Trenton Ave. and Oakdale St., Philadelphia, Pa.
Cortland Welding Compound Co., 12-16 Crawford St., Cortland, N. Y.
Cory, Chas., Corp., 754 Lexington Ave., Brooklyn, N. Y.
Couse & Bolten, Inc., 42-46 Lafayette St., Newark, N. J.
Covel-Hanchett Co., Big Rapids, Mich.
Cowles Tool Co., 2086 W. 110th St., Cleveland, Ohio.
Craftex Co., 60 E. 42nd St., New York, N. Y.
Craley, C. C., Mfg. Co., P. O. Box 192, Shillington, Pa
Crandall Packing Co., Maple Ave., Palmyra, N. Y.
Crane Co., 836 S. Michigan Ave., Chicago.
Crane Packing Co., 1800 Cuyler Ave., Chicago, Ill.
Creamer Glass Works, 317 E. Main St., Millville, N. J.
Crescent Belt Fastener Co., 247 Park Ave., New York, N. Y.
Crescent Tool Co., 200 Harrison St., Jamestown, N. Y.
Crescent Truck Co., Lebanon, Pa.
Crowell, D. J., & Crowell, F. G., 61 Terrace, Buffalo, N. Y.
Crown Spray Gun Mfg. Co., 1216-1218 Venice Blvd., Los Angeles, Calif.
Crucible Steel Co. of America, The, 405 Lexington Ave., New York, N. Y.
Cullman Wheel Co., 1344 Altgeld, Chicago.
Cumberland Steel Co., 101 Williams St., Cumberland, Md.
Cunco Catalog Service Co., The, 22nd, Canal & Grove Sts., Chicago, Ill.
Curry Brothers Oil Co., 22-26 Oliver St., Boston, Mass.
Curtin-Hebert Co., Inc., 9 Forest St., Gloversville, N. Y.
Curtis & Curtis Co., 328 Garden St., Bridgeport, Conn.
Curtis Lighting, Inc., 1123 W. Jackson Blvd., Chicago, Ill.
Curtis Machine Corp., Jamestown, N. Y.
Curtis Pneumatic Machinery Co., 1928 Keinlein Ave., St. Louis, Mo.
Cushman Chuck Co., The, 806 Windsor St., Hartford, Conn.
Cutler-Hammer, Inc., N. 12th St. & W. St. Paul Ave., Milwaukee, Wis.
Cutter Machine Co., 3723 Commonwealth Ave., Maplewood Station, St. Louis, Mo.
Cyclone Fence Co., Waukegan, Ill.
Cyclone Grate-Bar Co., 822 E. Delavan Ave., Buffalo, N. Y.

D

D. G. C. Trap & Valve Co., Inc., 366 Madison Ave., New York, N. Y.
Dake Engine Co., 632 Monroe St., Grand Haven, Mich.
Dallett Co., The, 165-189 W. Clearfield St., Philadelphia, Pa.
Darcoid Co., Inc., The, 200 Varick St., New York, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa.
Darnell Corporation, 3300 East 11th St., Long Beach, Calif.

Dart, E. M., Mfg. Co., 134 Thurbers Ave., Providence, R. I.
Davis Regulator Co., 2541 S. Washtenaw Ave., Chicago, Ill.
Davison Combustion Co., 2939 Smallman St., Pittsburgh, Pa.
Dayton Air Compressor Co., The, 427 Valley St., Dayton, Ohio.
Dayton Bronze Bearing Co The, 303 Keowee St., Dayton, Ohio.
Dayton Rubber Mfg. Co., The, W. Riverview Ave., Dayton, Ohio.
Dayton Safety Ladder Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Dean Brothers Co., 323 W. 10th St., Indianapolis, Ind.
Dean-Hill Pump Co., 23rd & St. Charles Sts., Anderson, Ind.
Decatur Pump Co., 2750 Nelson Park Rd., Decatur, Ill.
DeLaval Steam Turbine Co., Trenton, N. J.
DeLoach Mill Mfg. Co., Fort & Main Sts., Chattanooga, Tenn.
Delta File Works, 4837 James St., Philadelphia, Pa.
Delta Mfg. Co., 620 East Vienna Ave., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Deshler Broom Factory, The, Deshler, Neb.
Desmond-Stephan Mfg. Co., 317 S. Walnut St., Urbana, Ohio.
Detex Watchclock Corp., 4147 Ravenswood Ave., Chicago, Ill.
Detroit Belt Lacer Co., 3951 A St., Detroit, Mich.
Detroit Brass & Malleable Works, 100 S. Campbell Ave., Detroit, Mich.
Detroit Edge Tool Co., 433 Mt. Elliott Ave., Detroit, Mich.
Detroit Graphite Co., Detroit, Mich.
Detroit Hoist & Machine Co., 8203 Morrow St., Detroit, Mich.
Detroit Lubricator Co., 5842 Trumbull Ave., Detroit, Mich.
Detroit Metal Spinning Co., Inc., 625 Monroe Ave., Detroit, Mich.
Detroit Nut Co., Inc., 2456 Hubbard Ave., Detroit, Mich.
Detroit Oak Belting Co., 3362 Wight St., Detroit, Mich.
Detroit Stamping Co., 3445-61 W. Fort St., Detroit, Mich.
Detroit Torch & Manufacturing Co., 12057 Cardoni Ave., Detroit, Mich.
DeVilbiss Co., The, 300 Phillips Ave., Toledo, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Diamant Tool & Mfg. Co., Inc., 401 Mulberry St., Newark, N. J.
Diamond Chain and Mfg. Co., 403 Kentucky Ave., Indianapolis, Ind.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Diamond Iron Works, Inc., 1728 N. 2nd St., Minneapolis, Minn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., 444 S. Main St., Akron, Ohio.
Diamond Saw and Stamping Works, 347 Davey St., Buffalo, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Diehl Mfg Co., Elizabethport, N. J.
Diener, Geo. W., Mfg. Co., 400-420 Monticello Ave., Chicago, Ill.
Dietz, R. E., Co., 60 Laight St., New York.
Dietzgen, Eugene Co., 2425 Sheffield Ave., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Divine Brothers Co., 102 Whitesboro St., Utica, N. Y.
Dixie Logging Tool Co., Greenwood & E. 13th St., Chattanooga, Tenn.
Dixon, Joseph, Crucible Co., Wayne & Monmouth Sts., Jersey City, N. J.
Dixon Valve & Coupling Co., Hancock St. & Columbia Ave., Philadelphia, Pa.
Dobbins Core Drill Co., Inc., 5-43 48th Ave., Long Island City, N. Y.
Dockson, C. H., Co., 40 W. Milwaukee Ave., Detroit, Mich.
Dodge Manufacturing Corp., 501 So. Union St., Mishawaka, Ind.
Domestic Engineering & Pump Co., Shippensburg, Pa.
Donnelley, R. R., & Sons Co., 350 E. 22nd St., Chicago, Ill.
Doolittle, L. G., 1 Sturges St., Binghamton, N. Y.
Dover Stamping & Mfg. Co., 385 Putnam Ave., Cambridge, Mass.
Downs, I. G., 620 Exchange Bldg., Denver, Colo.
Dresser, S. R., Mfg. Co., 41 Fisher Ave., Bradford, Pa.
Drew, C., & Co., Kingston, Mass.
Driscoll Drive Corp., 258 Broadway, New York, N. Y.
Dudgeon, Richard, Inc., 24-26 Columbia St., New York, N. Y.
Duff-Norton Mfg. Co., The, P. O. Box 1889 Pittsburgh, Pa.
Dumore Co., The, 14th and Racine St. (Dept. M. S.), Racine, Wis.
Dunton, M. W., Co., The, 670 Eddy St., Providence, R. I.
Du Pont De Nemours, E. I., & Co., Du Pont Bldg., Wilmington, Del. (Finishes Div.)
Durabla Manufacturing Co., 114 Liberty St., New York, N. Y.
Durabilt Steel Locker Co., 541 Arnold Ave., Aurora, Ill.
Durant Mfg. Co., 1925-1929 N. Buffum St., Milwaukee, Wis.
Duryea Products Co., 117 Liberty St., New York, N. Y.

E

Eagle Belting Co., 108 N. Jefferson St., Chicago, Ill.
Eagle Counter & Leather Co., The, Freeman & Hubert Ave., Cincinnati, Ohio.
Eagle Lock Co., 26 Warren St., New York.
Eagle Manufacturing Co., 24th & Charles Sts., Wellsburg, W. Va.
Eagle-Picher Lead Co., The, 134 N. LaSalle St., Chicago, Ill.
Eagle Saw Co., Rossville Blvd., Chattanooga, Tenn.
Earle Gear & Machine Co., The, 4707-15 Stenton Ave., Philadelphia, Pa.
Eaton Manufacturing Co., (Reliance Spring Washer Division), Massillon, Ohio.
Eberhard Mfg. Co., 2734 Tennyson Rd., Cleveland, Ohio.
Economic Lamp Co., Malden, Mass.
Economy Baler Co., Ann Arbor, Mich.
Economy Electric Lantern Co., Inc., 325 W. Huron St., Chicago, Ill.
Economy Machine Products Co., 5210 Lawrence Ave., Chicago, Ill.
Economy Manufacturing Co., 5350 Germantown Ave., Philadelphia, Pa.
Economy Pumping Machinery Co., 3431 W. 48th Place, Chicago, Ill.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Edgemont Machine Co., The, 2200 Home Ave., Dayton, O.
Edna Brass Mfg. Co., The, 533 Reading Rd., Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, 1200 W. 145th St., East Chicago, Ind.
Edwards, E. H., 225 Bush St., San Francisco, Cal.
Edwards, H. D., & Co., 175 E. Larned St., Detroit, Mich.
Edwards Manufacturing Co., The, 517-547 Eggleston Ave., Cincinnati, Ohio.
Efficiency Engineering Co., 17 Montrose St., Boston, 19, Mass.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eiermann Floor Scraper Co., The, 1971 Fulton St., Brooklyn, N. Y.
Eisler Engineering Co., 750 S. 13th St., Newark, N. J.
Elco Tool & Screw Corp., 1902 Broadway, Rockford, Ill.
Elder & Jenks, 411-419 Vine St., Philadelphia, Pa.
Electric Air Heater Div., American Foundry Equipment Co., 700 Byrkit St., Mishawaka, Ind.
Electric Blower Co., 352 Atlantic Ave., Boston, Mass.
Electric Hose & Rubber Co., 12th & Dure Sts.,Wilmington, Del.
Electric Soldering Iron Co., Inc., 342 W. 14th St., New York, N. Y.
Electric Sprayit Co., The, 220 North Broadway, Milwaukee, Wis.
Electric Torch Mfg. Co., Oakland, Calif.
Electric Wheel Co., Quincy, Ill.
Electro Engineering Co., Inc., 11712 Atlantic Ave., Richmond Hill, New York.
Elkhart Brass Mfg. Co., 1302 W. Beardsley Ave., Elkhart, Ind.
Elkhart Foundry & Machine Co., South Elkhart Ave., Elkhart, Ind.
Elkhart Iron Works, 2000 S. Main St., Elkhart, Ind.
Elkhart Rubber Works, 1714 13th St., Elkhart Ind.
Ellis & Ford Mfg. Co., 38 Piquette Ave., Detroit, Mich.
Elwell-Parker Electric Co., The, 4208 St. Clair Ave., Cleveland, Ohio.
Embury Mfg. Co., Warsaw, N. Y.
Emerson Electric Mfg. Co., The, 2012-32 Washington Ave., St. Louis, Mo.
Emmert Mfg. Co., W. Main St., Waynesboro, Pa.
Empire Brass Mfg. Co., The, 10301-11 Berea Road, Cleveland, Ohio.
Empire Level Manufacturing Co., 717 S. 6th St., Milwaukee, Wis.
Empire Machine Works, Lackawanna Ave., Mt. Morris, N. Y.
Empire Manufacturing Co., Front & Cedar Sts., Quincy, Ill.
Endura Mfg. Corp., 45 N. Fourth St., Quakertown, Pa.
Ensign Products Co., 10703 Quebec Ave., Cleveland, Ohio.
Erie Tool Works, The, 11th & French Sts., Erie, Pa.
Essex Brass Corp., 2000 Franklin St., Detroit, Mich.
Estwing Mfg. Co., Harrison Ave., & 8th St., Rockford, Ill.
Ettco Tool Co., 594 Johnson Ave., Brooklyn, N. Y.
Euclid-Armington Corp., Euclid, Ohio.
Euclid Rubber Co., 19730 Tyronne Ave., Cleveland, Ohio.
Eureka Packing Co., and Braiding and Packing Works of America, Inc., 250 46th St., Brooklyn, N. Y.
Evansville Leather & Belting Co., 431 Sycamore St., Evansville, Ind.
Evansville Tool Works, Inc., 9th & Maryland St., Evansville, Ind.
Ever-Nu Fuse Co., 919 N. Latrobe Ave., Chicago, Ill.
Everhot Mfg. Co., 619 S. 10th Ave., Maywood, Ill.
Everitt Co., [illegible], 261 Franklin St., Boston.
Everlasting Valve Co., 49 Fisk St., Jersey City, N. J.
Excel Asbestos Mfg. Co., 403-405 South Ave., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., 720-730 Chestnut St., Rockford, Ill.
Excelsior Plimptruck Co., The, 796 Atlantic St., Stamford, Conn.
Excelsior Tool & Machine Co., 31st St., & Ridge Ave., East St. Louis, Ill.

F

Fabreeka Products Co., 222 Summer St., Boston, Mass.
Fafnir Bearing Co., The, New Britain, Conn.
Fairbanks Co., The, 19 East 4th St., New York, N. Y.
Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.
Fairfield Engineering Co., The, Barnhart St., Marion, Ohio.
Falk Corp., The, Foot of 30th St., Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquahar, A. B., Co., Ltd., 145 North Duke, York, Pa.
Farrel-Birmingham Co., Inc., 75 Main St., Ansonia, Conn.
Faultless Caster Corp., 1521 N. Garvin St., Evansville, Ind.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Federal Electric Co., Inc., 8720 S. State St., Chicago, Ill.
Federal Metallic Packing Co., 29-99 Foundry St., Wakefield, Mass.
Federal Press Co., 511 Division St., Elkhart, Ind.
Federal Products Corp., 1144 Eddy St., Providence, R. I.
Federal Screw Works, 3401 Martin Ave., Detroit, Mich.
Federated Metals Corp., 120 Broadway, New York, N. Y.
Felt Products Co., 1504-14 Carroll Ave., Chicago, Ill.
Fenwick-Reddaway Mfg. Co., 46 Paris St., Newark, N. J.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Ferry Cap & Set Screw Co., 2151 Scranton Rd., Cleveland, Ohio.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Field, R. B., & Co., 10 Clarence St., Worcester, Mass.
Filer & Stowell Co., The, 219 Beecher St., Milwaukee, Wis.
Finn, John, Metal Works, 384 Second St., San Francisco, Calif.
Fisher Governor Co., The, Marshalltown, Iowa.
Fitler, Edwin H., Co., The, 517 Arch St., Philadelphia, Pa.
Fitz Water Wheel Co., P. O. Box 308, Hanover, Pa.
Flannery Bolt Co., 3528 Forbes St., Pittsburgh, Pa.
Flash Chemical Co., 160 2nd St., Cambridge, Mass.
Fletcher-Terry Co., The, Forestville, Conn.
Flexible Shafts, Inc., State & Shear Sts., Binghamton, N. Y.
Flexible Steel Lacing Co., 4607 Lexington St., Chicago, Ill.
Flexitallic Gasket Co., 924 N. 8th St., Camden, N. J.
Flexrock Co., 800 N. Delaware Ave., Philadelphia, Pa.
Foley Mfg. Co., 11-15 Main St., N. E., Minneapolis, Minn.
Foote Bros. Gear & Machine Co., 5301 S. Western Ave., Chicago, Ill.
Foote Gear Works, Inc., 1307-9 S. Cicero Ave., Cicero, Ill.
Forbes & Myers, 172 Union St., Worcester, Mass.
Ford, J. B., Co., The, Wyandotte, Mich.
Ford, M. A., Mfg. Co., 102 Harrison St., Davenport, Iowa.
Ford Chain Block Co., 2101 N. Second St., Philadelphia, Pa.
Ford Regulator Valve Co., Inc., 407 Broome St., New York, N. Y.
Ford's Porcelain Works, Lehigh Ave. & Stockton St., Perth Amboy, N. J.
Forest City Bit & Tool Co., 1206 Kishwaukee St., Rockford, Ill.
Forged Steel Products Co., South 5th St., Newport, Pa.
Forsberg Mfg. Co., The, 125 Seaview Ave., Bridgeport, Conn.

Ft. Wayne Engineering & Mfg. Co., 6th & Harrison St., Ft. Wayne, Ind.
Foster Engineering Co., 109A Monroe St., Newark, N. J.
Foster-Johnson Reamer Co., Beardsley Ave., Elkhart, Ind.
Fostoria Pressed Steel Corp., The, North Main St., Fostoria, Ohio.
Foxboro Co., The, Neponset Ave., Foxboro, Mass.
Fraim, E. T., Lock Co., 237 Park Ave., Lancaster, Pa.
France Packing Co., The, Tacony, Philadelphia, Pa.
Franklin Cotton Mill Co., The, 1114 Central Parkway, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Frasse, Peter A., & Co., Inc., 17 Grand St., New York, N. Y.
Frederick Iron & Steel Co., The, E. 7th St., Frederick, Md.
Fredericksen Co., 831 S. Water St., Saginaw, Mich.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Frick-Reid Supply Corp., 117 Sandusky St., N. S., Pittsburgh, Pa.
Frictionless Metal Co., 1458-60 Collins St., St. Louis, Mo.
Fridy Hoist & Machinery Co., Mountville, Pa.
Friedrich & Dimmock, Millville, N. J.

G

G. D. S. Shearing & Punching Machine Co., Inc., 101 Walker St., New York, N. Y.
G. M. Laboratories, Inc., 1735 Belmont Ave., Chicago, Ill.
Gairing Tool Co., The, 1629-1637 Lafayette Blvd., Detroit, Mich.
Galland-Henning Manufacturing Co., 2753 S. 31st St., Milwaukee, Wis.
Gammons-Holman Co., The, Manchester, Conn.
Gandy Belting Co., Grand Rapids, Mich.
Garden City Fan Co., 332 S. Michigan Ave., Chicago, Ill.
Garden City Laboratory, Inc., 550 W. Roosevelt Rd., Chicago, Ill.
Gardiner Metal Co., 4833 S. Campbell Ave., Chicago, Ill.
Gardner-Denver Co., Quincy, Ill.
Garlock Packing Co., The, 50 Main St., Palmyra, N. Y.
Garwood Bronze & Iron Works, Garwood, N. J.
Gast Mfg. Co., The, Bridgman, Mich.
Gates Rubber Co., The, 999 S. Broadway, Denver, Colo.
Gem Manufacturing Co., 1229-1243 Goebel St., Pittsburgh, Pa.
General Abrasive Co., Inc., 2020 College Ave., Niagara Falls, N. Y.
General Asbestos & Rubber Division of Raybestos - Manhattan, Inc., North Charleston, S. C.
General Brass Co., 100 S. Campbell Ave., Detroit, Mich.
General Chemical Co., 300 W. Adams St., Chicago, Ill.
General Electric Co., River Road, Schenectady, N. Y.
General Electric Co., Incandescent Lamp Dept., Nela Park, Cleveland, Ohio.
General Electric Co., Merchandise Dept., Bridgeport, Conn.
General Fibre Co., Union & Lumber Sts., Chicago, Ill.
General Refractories Co., 106 S. 16th St., Philadelphia, Pa.
General Wheelbarrow Co., The, 3140 E. 65th St., Cleveland, Ohio.
Geometric Tool Co., The, Blake & Valley Sts., New Haven, Conn.
Gerard Mfg. Co., 729 Main St., Dickson City, Pa.
Gerstner, H., & Sons, 25-31 Columbia St., Dayton, Ohio.
Gerts, Lumbard & Co., 2100 Grand Ave., Chicago, Ill.
Geuder, Paeschke & Frey Co., 15th St. & St. Paul Ave., Milwaukee, Wis.
Giant Mfg. Co., Council Bluffs, Iowa.
Gilmer, L. H., Co., Keystone & Cottman Sts., Philadelphia, Pa.
Gilson Slide Rule Co., Stuart, Fla.
Gisholt Machine Co., 1305 E. Washington Ave., Madison, Wis.
Gits Bros. Mfg. Co., 1846-1862 S. Kilbourn Ave., Chicago, Ill.
Glacier Metal Co., P. O. Box 337, Richmond, Va.
Glenzer, J. C., Co., The, 6463 Epworth Blvd., Detroit, Mich.
Globe Kneadable Metallic Packing Co., Inc. 1767 W. 10th St., Brooklyn, N. Y.
Globe Machine & Stamping Co., The, 1260 W. 76th St., Cleveland, Ohio.
Globe Steel Abrasive Co., The, 1st Ave., Mansfield, Ohio.
Globe Steel Tubes Co., 3839 W. Burnham St., Milwaukee, Wis.
Globe Woven Belting Co., Inc., 1396-1414 Clinton St., Buffalo, N. Y.
Glover, Manson, Stoughton, Mass.
Godfrey Conveyor Co., Wolf Ave., Elkhart, Ind.
Goetze Gasket & Packing Co., Inc., 26 Allen Ave., New Brunswick, N. J.
Goheen Corp. of New Jersey, Emmett & Goble Sts., Newark, N. J.
Goodall Rubber Co., 5 S. 36th St., Philadelphia, Pa.
Goodall Semi-Metallic Hose & Mfg. Co., 165 W. Columbia Ave., Philadelphia, Pa.
Goodell-Pratt Co., Division of Millers Falls Co., 57 Wells St., Greenfield, Mass.
Goodell, Zina, Corp., 86-92 Lafayette St., Salem, Mass.
Goodrich Grinding Wheel Co., 1500 W. Madison St., Chicago, Ill.
Goodrich, B. F., Co., The, 400 S. Main St., Akron, Ohio.
Goodsell Packing Co., Algonquin, Ill.
Goodyear Tire & Rubber Co., Inc., The, 1144 East Market St., Akron, Ohio.
Gorton Heating Corp., Cranford, N. J.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Grabler Mfg. Co., 6565 Broadway, Cleveland, Ohio.
Grady Mfg. Co., The, 250-62 Ely Ave., Long Island City, N. Y.
Grand Rapids Vapor Kiln, Inc., 549 Alabama Ave., N. W., Grand Rapids, Mich.
Graton & Knight Co., 356 Franklin St., Worcester, Mass.
Gray & Prior Machine Co., The, 614 Windsor St., Hartford, Conn.
Great Lakes Chemical Works, 5440-5450 W. Jefferson Ave., Detroit, Mich.
Great Neck Saw Mfrs., Inc., Great Neck, L. I., N. Y.
Green, A. P., Fire Brick Co., Mexico, Mo.
Greene, Tweed & Co., 109 Duane St., New York, N. Y.
Greenfield Tap & Die Corp., Sanderson St., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grinnell Co., Inc., 260 W. Exchange St., Providence, R. I.
Gripwell Mfg. Co., 105 West 40th St., New York, N. Y.
Grobet File Corp. of America, 3 Park Pl., New York, N. Y.
Gross Rubber Co., 146-148 E. State, Sharon, Pa.
Gundlach, T. J., Machine Co., 408 E. Main St., Belleville, Ill.
Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
Gustafson & Scott Mfg. Co., 1637 Lowell Ave., Chicago, Ill.

H

H. D. B. Corporation, 900 N. Spaulding Ave., Chicago, Ill.
Haddon Bin Label Co., 206 W. Atlantic Ave., Haddon Heights, N. J.
Hallanger Industrial Oiler Div. of Davis Tool & Engineering Co., 6481 Epworth Blvd., Detroit, Mich.
Hamburg Broom Works, Hamburg, Pa.
Hamilton Caster & Mfg. Co., The, 1637 Dixie Highway, Hamilton, Ohio.
Hamilton Foundry & Machine Co., The, Hamilton, Ohio.
Hamilton Rubber Mfg. Co., Mead St., Trenton, N. J.
Hammel, Riglander & Co., Inc., 209 West 14th St., New York, N. Y.
Handlan-Buck Mfg. Co., 212 N. 3rd St., St. Louis, Mo.
Handy & Harmon, 82 Fulton St., New York, N. Y.
Hannifin Mfg. Co., 621 S. Kolmar Ave., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Harker Mfg. Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Harnischfeger Corp., 4400 W. National Ave., Milwaukee, Wis.
Harper, H. M., Co., 2620 Fletcher St., Chicago, Ill.
Harrington Co., The, 17th & Callowhill Sts., Philadelphia, Pa.
Harrington & King Perforating Co., The, 5655 Fillmore St., Chicago, Ill.
Harris, Arthur, & Co., 212-218 Curtis St., Chicago, Ill.
Harris, A. W., Oil Co., 326 S. Water St., Providence, R. I.
Harris Calorific Co., The, 5501 Cass Ave., N. W., Cleveland, Ohio.
Harris & Reed Mfg. Co., 1510 W. 15th St., Chicago, Ill.
Harrisburg Foundry & Machine Co., Inc., 7th & Curtin Sts., Harrisburg, Pa.
Harrisburg Stamping Co., Harrisburg, Pa.
Harrison & Co., 490 Groveland St., Haverhill, Mass.
Hart, R. E., Mfg. Co., Box 610, Battle Creek, Mich.
Hartford Machine Screw Co., 476 Capitol Ave., Hartford, Conn.
Hartz, H. V., Co., The, Cuyahoga & Mahoning Aves., Cleveland, Ohio.
Hartzell Propeller Fan Co., Piqua, Ohio.
Haskell, Wm. H., Manufacturing Co., 24 Commerce St., Pawtucket, R. I.
Haskins, R. G., Co., 4627 W. Fulton St., Chicago, Ill.
Hauck Manufacturing Co., 126-134 10th St., Brooklyn, N. Y.
Hauserman, E. F., Co., The, 6800 Grant Ave., Cleveland, Ohio.
Havana Mfg. Co., 112 N. Pear St., Havana, Ill.
Hawes Manufacturing Co., Inc., 113 Hudson St., Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Hayes File Co., 1986 Franklin St., Detroit, Mich.
Hays Manufacturing Co., 12th & Liberty Sts., Erie, Pa.
Hazard Wire Rope Co., 81 E. Ross St., Wilkes-Barre, Pa.
Heinisch, R., Sons Works, 42 S. 6th St., Newark, N. J.
Heinn Co., 326 Florida St., Milwaukee, Wis.
Heintze, James C., & Co., 3738 W. 143rd St., Cleveland, Ohio.
Heiz & Heiz, Inc., 33 34th St., Brooklyn, N. Y.
Hellenberg, J. B., Co., Inc., The, Clark & Jefferson Sts., Coldwater, Mich.
Heller Bros. Co., 865 Mt. Prospect Ave., Newark, N. J.
Heller, W. C., & Co., Montpelier, Ohio.
Henderer's, A. L., Sons, Md. Ave. and Beech St., Wilmington, Del.
Hennebohle, Frank, 81st St. & S. Chicago Ave., Chicago, Ill.
Henry & Allen, Inc., 2-36 Wadsworth St., Auburn, N. Y.
Hercules Powder Co., Inc., 900 Market St., Wilmington, Del.
Hergi Mfg. Co., The, 250 5th St., Bridgeport, Conn.
Hermance Machine Co., 178 Campbell St., Williamsport, Pa.
Hersey Manufacturing Co., E. and 2nd Sts., South Boston Station, Boston, Mass.
Heston & Anderson, 1072 Grant Ave., Fairfield, Iowa.
Hettrick Mfg. Co., The, Summit at Magnolia, Toledo, Ohio.
Hewitt Metals Corp., 5723 12th St., Detroit, Mich.
Hewitt Rubber Corp., 240 Kensington Ave., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., 1301 Prouty Ave., Toledo, Ohio.
Hexacon Electric Appliance Corp., 161-163 W. Clay Ave., Roselle Park, N. J.
Highland Electro Chemical Mfg. Co., Connellsville, Pa.
Hill Clutch Machine & Foundry Co., The, 6400 Breakwater Ave., Cleveland, Ohio.
Hilliard Corp., The, 102 W. 4th St., Elmira, N. Y.
Hills McCanna Corp., 2349 Nelson St., Chicago, Ill.
Himmelein & Bailey, Inc., 1300 Walnut St., Camden, N. J.
Hinds & Coon Co., 116-118 Pearl St., Boston, Mass.
Hinsdale Manufacturing Co., 427 W. Randolph St., Chicago, Ill.
Hisey-Wolf Machine Co., Colerain & Marshall Aves., Cincinnati, Ohio.
Hjorth Lathe and Tool Co., 12 Beacon St., Woburn, Mass.
Hobbs, Clinton, E., Co., 203 Chelsea St., Everett Branch, Boston, Mass.
Hobbs Manufacturing Co., 26 Salisbury St., Worcester, Mass.
Hoe, R., and Co., Inc., 138th and E. River Sts., Bronx, New York, N. Y.
Hoffeld, R., & Co., 61-69 Carroll St., Buffalo N. Y.
Hoggson & Pettis Mfg. Co., The, 141 Brewery St., New Haven, Conn.
Holcomb, A. L., 15 Market Ave., N. W., Grand Rapids, Mich.
Holcomb Safety Garment Co., 128 N. Jefferson St., Chicago, Ill.
Hollands Mfg. Co., 342-352 E. 18th St., Erie, Pa.
Hollow Center Packing Co., 6523 Euclid Ave., Cleveland, Ohio.
Holmberg Steam Trap Co., The, 122 E. Lincoln St., Lindsborg, Kansas.
Holo-Krome Screw Corp., Bristol, Conn.
Holyoke Belting Co., 66-68 Winter St., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Homestead Valve Mfg. Co., P. O. Box H, Coraopolis, Pa.
Hones, Charles A., Inc., 121 S. Grand Ave., Baldwin, N. Y.
Hoosier Broom Manufacturing Co., 2224 Bethel Ave., Indianapolis, Ind.
Hooven & Allison Co., The, Xenia, Ohio.
Hoover Steel Ball Co., Ann Arbor, Mich.
Hoppes Water Wheel Co., The, Greenmount & Columbus Aves., Springfield, Ohio.
Horn, A. C., Co., 43-44 Tenth St., Long Island City, N. Y.
Horsburgh & Scott Co., The, 5115 Hamilton Ave., Cleveland, Ohio.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Hubbard & Co., 6301 Butler St., Pittsburgh.
Hubbell, Harvey, Inc., State St. & Bostwick Ave., Bridgeport, Conn.
Huffman Manufacturing Co., The, P. O. Box 1036, Dayton, Ohio.
Huhn Manufacturing Co., 1391 Sedgwick Ave., Bronx, New York, N. Y.
Humphrey, H. W., Unionville, Conn.

UMI

Hunt, C. B., & Son, 2051 E. State St., Salem, Ohio.
Hunt, Geo. L., Mfg. Co., Inc., 1030 Wisconsin Ave., Boscobel, Wis.
Hunt, H. W., Co., 47 Pleasant St., Reading, Mass.
Hunter Pressed Steel Co., Pierce & Linden Sts., Lansdale, Pa.
Huot Mfg. Co., 128 E. 10th St., St. Paul, Minn.
Huron Industries, Inc., Alpena, Mich.
Huyette, Paul B., Co., Inc., 401 N. Broad St., Philadelphia, Pa.
Hyatt Roller Bearing Co., P. O. Box 476, Newark, N. J.
Hydraulic Press Mfg. Co., The, 50 Lincoln Ave., Mount Gilead, Ohio.
Hygeia Respirator Co., 129 East 85th St., New York, N. Y.
Hygrade Sylvania Corp., 60 Boston St., Salem, Mass.
Hy-Tools, Inc., Penfield & Niagara Sts., Buffalo, N. Y.

I

Ideal Commutator Dresser Co., 1020 Park Ave., Sycamore, Ill.
Ideal Face Shield Co., The, 468 N. Garfield Ave., Columbus, Ohio.
Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago, Ill.
Illinois Gear & Machine Co., 2108 N. Natchez Ave., Chicago, Ill.
Illinois Iron & Bolt Co., 10 Main St., Carpentersville, Ill.
Illinois Malleable Iron Co., 1801 Diversey Parkway, Chicago, Ill.
Illinois Mechanical Leather Co., 1720 N. Winchester Ave., Chicago, Ill.
Illinois Testing Laboratories, Inc., 141 W. Austin Ave., Chicago, Ill.
Illinois Tool Works, 2501 N. Keeler Ave., Chicago, Ill.
Imperial Belting Co., 1750-1800 S. Kilbourn Ave., Chicago, Ill.
Imperial Brass Manufacturing Co., 511 S. Racine Ave., Chicago, Ill.
Imperial Floor Co., Inc., 59 Halstead St., Rochester, N. Y.
Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., 126 Brush St., Indianapolis, Ind.
Industrial Brownhoist Corp., 4403 St. Clair Ave., Cleveland, Ohio.
Industrial Gloves Corp., 700 Garfield Blvd., Danville, Ill.
Ingersoll Milling Machine Co., The, 2420 Douglas St., Rockford, Ill.
Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
Ingersoll Steel & Disc Co., West Broad St., Newcastle, Ind.
Instantaneous Glue Converter Co., 3752 Montgomery Ave., Cincinnati, Ohio.
Interlocking Products Co., 545 Fifth Ave., New York, N. Y.
International Chain & Mfg. Co., York, Pa.
International Clay Machinery Co., 1057 Bolander Ave., Dayton, Ohio.
International Nickel Co., Inc., The, 67 Wall St., New York, N. Y.
International Nutyp Tool Corp., Oswego, N. Y.
Ireson, Charles L., Co., 20 South St., Philadelphia, Pa.
Irwin Auger Bit Co., Wilmington, Ohio.
Ivins, Ellwood, Steel Tube Works, Inc., Coventry Aves. & Valley Rd., Oak Lane Station, Philadelphia, Pa.
Iwan Brothers, 1503 Prairie Ave., South Bend, Ind.

J

Jackson, Byron Co., 2150 E. Slauson St., Los Angeles, Calif.
Jackson, Isaac, Belt Fastener Co., Inc., 18 Vesey St., New York, N. Y.
Jackson Manufacturing Co., Magnolia St. & P. R. R., Harrisburg, Pa.
Jacobs Manufacturing Co., The, 2076 Park St., Hartford, Conn.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Jaeger Machine Co., The, 520 Dublin Ave., Columbus, Ohio.
Janos Asbestos Co., 26 Cortlandt St., New York, N. Y.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Jay Tee Tool Sales Co., 4900 Euclid Ave., Cleveland, Ohio.
Jefferson Electric Co., Bellwood, Ill.
Jefferson Union Co., Lexington, Mass.
Jeffrey Manufacturing Co., The, 930-99 N. Fourth St., Columbus, Ohio.
Jeffrey-Traylor Division of The Jeffrey Manufacturing Co., Columbus, Ohio.
Jenkins Bros., 80 White St., New York.
Jerry Bros. Belting Co., 1908 E. Main St., Richmond, Va.
Jewel Incandescent Lamp Co., 900 Passaic Ave., E. Newark, N. J.
Jewell Belt Hook Co., 112 Bridge St., Naugatuck, Conn.
Jewett Refrigerator Co., Inc., The, 2 Letchworth St., Buffalo, N. Y.
Jiffy Fire Hose Rack Co., 133 W. 52nd St., New York, N. Y.
Jobbers Mfg. Co., 7 S. Dearborn St., Chicago, Ill.
Johns-Manville, 22 East 40th St., New York, N. Y.
Johnson Belting Co., 34-44 Hubert St., New York, N. Y.
Johnson Bronze Co., 500-600 S. Mill St., New Castle, Pa.
Johnson, Carlyle, Machine Co., The, 52 Main St., Manchester, Conn.
Johnson, E. P., Rule Mfg. Co., 565 W. Washington Blvd., Chicago, Ill.
Johnson, William, Inc., Kent & Brenner Sts., Newark, N. J.
Johnson Mfg. Co., 729 W. Washington Blvd., Chicago, Ill.
Johnston & Chapman Co., 2925 Carroll Ave., Chicago, Ill.
Johnston-Morehouse-Dickey Co., 704 Second Ave., Pittsburgh, Pa.
Jones, H. H., Lancaster, N. H.
Jones & Laughlin Steel Corp., 3rd Ave., & Ross St., Pittsburgh, Pa.
Jones Superior Machine Co., 1264 W. North Ave., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., 4401 Roosevelt Rd., Chicago, Ill.
Jordan Brothers, Inc., 74 Beekman St., New York, N. Y.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Joyce-Cridland Co., The, 329 Linden Ave., Dayton, Ohio.
Judson Governor Co., The, 20-38 Brown's Race, Rochester, N. Y.
Justrite Manufacturing Co., 2083 Southport Ave., Chicago, Ill.
Justus Steam Trap Co., Napanoch, N. Y.

K

K-D Manufacturing Co., Lancaster, Pa.
K-G Welding & Cutting Co., Inc., 515 W. 29th St., New York, N. Y.
Kaalot Mfg. Co., The, 3927 N. Kedzie Ave., Chicago, Ill.
Kalamazoo Railway Supply Co., 1827 Reed St., Kalamazoo, Mich.
Kant Slip Mfg. Co., 451 E. 63rd St., Chicago, Ill.
Karelsen, E., Inc., 15 W. 44th St., New York, N. Y.
Kaye & MacDonald, Inc., 96 Franklin Ave., West Orange, N. J.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., 452 Water St., New York, N. Y.
Keckley O. C., Co., 565 Washington Blvd., Chicago, Ill.
Keeler Brass Co., Grand Rapids, Mich.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Kelley, R. A., Co., The, W. Market St., Xenia, Ohio.
Kellogg Manufacturing Co., 97 Humboldt St., Rochester, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Kelly Machinery Co., 2524 W. Madison St., Chicago, Ill.
Kelly Reamer Co., 3705 W. 73rd St., Cleveland, Ohio.
Kempton Mfg. Corp., The, 148 W. 23rd St., New York, N. Y.
Kendallville Brush & Broom Co., P. O. Box 187, Kendallville, Ind.
Kennedy Manufacturing Co., 200 N. Harrison St., Van Wert, Ohio.
Kennedy Valve Mfg. Co., E. Water St., Elmira, N. Y.
Kentucky Lamp Works, Owensboro, Ky.
Kerotest Mfg. Co., 2525 Liberty Ave., Pittsburgh, Pa.
Kester Solder Co., 4201 Wrightwood Ave., Chicago, Ill.
Keuffel & Esser Co., Adams & 3rd Sts., Hoboken, N. J.
Key Co., 2621 McCosland Ave., East St. Louis, Ill.
Keystone Belting Co., 213 N. 3rd St., Philadelphia, Pa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Keystone Brass & Rubber Co., 811 Chestnut St., Philadelphia, Pa.
Keystone Coupling Co., 103 Market St., Pittsburgh, Pa.
Keystone Emery Mills, 4321 Paul St., Philadelphia, Pa.
Keystone-Hindley Gear Co., 20th St. & Indiana Ave., Philadelphia, Pa.
Keystone Lubricating Co., 21st & Clearfield Sts., Philadelphia, Pa.
Keystone Mfg. Co., 41-61 Chandler St., Buffalo, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Keystone Refractories Co., 120 Liberty St., New York, N. Y.
Kidd Drawn Steel Co., Alliquippa, Pa.
Kidde, Walter, & Co., Inc., 60 West St., Bloomfield, N. J.
Kidder, J. F., Mfg. Co., Inc., 426 Colchester Ave., Burlington, Vt.
Kieley & Mueller, Inc., 34 W. 13th St., New York, N. Y.
Kilborn & Bishop Co., The, 196 Chapel St., New Haven, Conn.
Kimball, C. M., Co., Chemical Lane, Everett, Mass.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., 1010 E. 62nd St., Los Angeles, Calif.
Kimble Electric Co., 2011 Hastings St., Chicago, Ill.
King Union Co., Inc., Hillsgrove, R. I.
Kingston-Conley Electric Co., 66 York St., Jersey City, N. J.
Kinney Manufacturing Co., 3529 Washington St., Boston, 30, Mass.
Klein, M., & Son, 3200 Belmont Ave., Chicago, Ill.
Klein-Logan Co., The, 13th & Breed St., Pittsburgh, Pa.
Kleinman, Russell F., 5317 N. Second St., Philadelphia, Pa.
Klemm Manufacturing Corp., 1447-1455 W. Austin Ave., Chicago, Ill.
Klingerit, Inc., 16-22 Hudson St., New York, N. Y.
Klipfel Manufacturing Co., 2641-59 W. Harrison St., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Knight & Thomas, Inc., 212 Summer St., Boston, Mass.
Knight, W. B., Machinery Co., 3920 W. Pine Blvd., St. Louis, Mo.
Knox Mfg. Co., 819 Cherry St., Philadelphia, Pa.
Koppers Products Co., Koppers Bldg., Pittsburgh, Pa.
Kova Brush & Broom Mfg. Co., 7th & Anderson Sts., Greensburg, Ind.
Kraeuter & Co., Inc., 585 Eighteenth Ave., Newark, N. J.
Kron Co., The, 1720 Fairfield Ave., Bridgeport, Conn.
Kuhns Brothers Co., 1800 McCall St., Dayton, Ohio.
Kulp Electric Co., 20 N. Wacker Dr., Chicago, Ill.
Kupferle, John C., Foundry Co., 2822 N. Main St., St. Louis, Mo.

L

LaFrancis, A., 435 14th Ave., Newark, N. J.
Laminated Shim Co., Inc., 2124 44th Ave., Long Island City, N. Y.
Lamson & Sessions Co., The, 1971 W. 85th St., Cleveland, Ohio.
Lane Mfg. Co., Montpelier, Vt.
Lanebro Manufacturing Co., Inc., 110 Main St., Poughkeepsie, N. Y.
Lansing Co., Lansing, Mich.
La Porte Machine & Tool Co., 1304 Lake St., La Porte, Ind.
La Salle Steel Co., Palm Olive Bldg., Chicago, Ill.
Latrobe Tool Co., Drawer "D," Latrobe Pa.
Laughlin, Thomas, Co., The, 143 Fore St., Portland, Maine.
Lavino, E. J., & Co., 1528 Walnut St., Philadelphia, Pa.
Lay, Joseph, Co., The, Wayne Ave. & Nickel Plate R. R., Portland, Ind.
Layth-Grinder Corp., 28 Canfield St., Orange, N. J.
Leach Co., Oshkosh, Wis.
Leard, William, Co., Inc., The, 16th St. & 5th Ave., New Brighton, Pa.
Le Blond, R. K., Machine Tool Co., Madison & Edwards Rds., Cincinnati, Ohio.
Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.
Leetonia Tool Co., The, 160 Front St., Leetonia, Ohio.
Leiman Bros., Inc., 156 Christie St., Newark, N. J.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Leonard Machine Works, 404 Baltimore Ave., Lansdowne, Pa.
Leschen, A., & Sons Rope Co., 5909 Kennerly Ave., St. Louis, Mo.
Leslie Co., Lyndhurst, N. J.
Lewellen Manufacturing Co., Columbus, Ind.
Lewis Bolt & Nut Co., 504 Malcolm Ave., S. E., Minneapolis, Minn.
Lewis, G. B., Co., 426 Montgomery St., Watertown, Wis.
Lewis-Shepard Co., 125 Walnut St., Watertown Station, Boston, Mass.
Lewis Steam Specialty & Valve Co., 247 E. Ashmead St., Philadelphia, Pa.
Lidseen, Gustave, Inc., 832 S. Central Ave., Chicago, Ill.
Lignum-Vitae Products Corp., 91-95 Boyd Ave., Jersey City, N. J.
Lillie, Dexter P., Co., P. O. Box 278, New Bedford, Mass.
Lincoln Electric Co., The, 12818 Coit Road, Cleveland, Ohio.
Linde Air Products Co., The, 30 E. 42nd St., New York, N. Y.
Linear Packing & Rubber Co., Inc., State Rd. & Levick St., Philadelphia, Pa.
Link-Belt Co., 300 W. Pershing Rd., Chicago, Ill.
Link-Belt Co. (Pacific Division), San Francisco, Cal.
Link, O. P., Handle Co., Salem, Ind.
Lippert, E. T., Saw Co., 608 Lincoln Ave., Millvale Branch, Pittsburgh, Pa.
List, E. J., Mfg. Co., Havana, Ill.
Littleford Bros., 451 E. Pearl St., Cincinnati, Ohio.

Loane Engineering Co., 208 S. Hanover St., Baltimore, Md.
Lockport Fittings Co., Inc., Lockport, N. Y.
Lodge & Shipley Machine Tool Co., The, 3055 Colerain Ave., Cincinnati, Ohio.
Lonergan, J. E., Co., 211 Race St., Philadelphia, Pa.
Loomis Machine Co., Tiffin, Ohio.
Loomis-Manning Filter Distributing Co., 1421-1465 S. 37th St., Philadelphia, Pa.
Louisville Electric Manufacturing Co., 31st & Magazine Sts., Louisville, Ky.
Louisville Sanitary Wipers Co., Inc., 759-65 S. Preston St., Louisville, Ky.
Lourie Manufacturing Co., 565 Washington Blvd., Chicago, Ill.
Lovejoy Tool Co., Inc., 133 Main St., Springfield, Vt.
Lovejoy Tool Works, 4955 W. Lake St., Chicago, Ill.
Lowell Wrench Co., 54 Commercial St., Worcester, Mass.
Lubriplate Corp., 20 Exchange Pl., New York, N. Y.
Lubron Co., The, Tileston & Kelvin Sts., Everett, Mass.
Ludlow-Saylor Wire Co., Newstead Ave., & Wabash R. R., St. Louis, Mo.
Ludlum Steel Co., Watervliet, N. Y.
Lufkin Rule Co., The, Hess St., Saginaw, Mich.
Luitwieler Pumping Engine Co., 123 Ames St., Rochester, N. Y.
Luma Electric Equipment Co., P. O. Box 132, Toledo, Ohio.
Lunkenheimer Co., The, Waverly Ave. and Beekman St., Cincinnati, Ohio.
Lupton's, David, Sons Co., Allegheny Ave. & Tulip St., Philadelphia, Pa.
Luther Grinder & Tool Co., 131 W. Seeboth St., Milwaukee, Wis.
Lyon, Conklin & Co., Inc., Race & McComas Sts., Baltimore, Md.
Lyon Metal Products, Inc., 834 Madison Ave., Aurora, Ill.

M

M. C. Tool Co., 1103 W. Monroe St., Chicago, Ill.
M. & H. Valve & Fittings Co., Anniston, Ala.
M-R-C Bearings Co., 402 Chandler St., Jamestown, N. Y.
McAuley Automatic Trap Co., 45 Imperial Power Bldg., Pittsburgh, Pa.
McCauley Belting Co., 412 Orleans St., Chicago, Ill.
McCord Radiator & Mfg. Co., 2587 E. Grand Blvd., Detroit, Mich.
McCullough Manufacturing Co., 2632-2634 Central Ave., Minneapolis, Minn.
McDonald, A. Y., Mfg. Co., 12th & Pine Sts., Dubuque, Iowa.
McDonnell & Miller, 400 N. Michigan Ave., Chicago, Ill.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
McGill Manufacturing Co., 259 Indiana Ave., Valparaiso, Ind.
McGonegal Mfg. Co., The, 228 Orchard St., P. O. Box 149, East Rutherford, N. J.
McGowan, John H., Co., The, 58 Central Ave., Cincinnati, Ohio.
McIlroy Belting Works, Hammond, Ind.
McKay Co., The, 1005 Liberty Ave., Pittsburgh, Pa.
McKinney-Harrington Conveyor Co., 179 W. 22nd St., North Chicago, Ill.
McLanathan, F. W., & Son, Canal St., Lawrence, Mass.
McLean Manufacturing Corp., 103-105 Sixth Ave., New York, N. Y.
McLeod & Henry Co., 357 1st St., Troy, N. Y.
McLeod Leather & Belting Co., 300-302 N. Forbis St., Greensboro, N. C.
McMillan's, W. H., Sons, 49 South St., New York, N. Y.
McNeill, T. W., Engineering Equipment Co., 4057 W. Van Buren St., Chicago, Ill.
Mabbs Hydraulic Packing Co., 431 S. Dearborn St., Chicago, Ill.
Macbeth-Evans Glass Co., Charleroi, Pa.
Machine Shop Equipment Co., 3rd St., Grove City, Pa.
MacWatty Belting Co., 7 Beverly St., Providence, R. I.
Macwhyte Co., 2922 14th Ave., Kenosha, Wis.
Madesco Tackle Block Co., Easton, Pa.
Madison-Kipp Corp., 201 Waubesa St., Madison, Wis.
Madison Manufacturing Co., Spring St. & Bauer Ave., Muskegon, Mich.
Magic Leather Treatment Co., 12209 Turner Ave., Detroit, Mich.
Magie Bros., 3634 W. Pershing Rd., Chicago, Ill.
Magnetic Manufacturing Co., 635 S. 28th St., Milwaukee, Wis.
Magnolia Metal Co., 120 Bayway, Elizabeth, N. J.
Main Belting Co., 1241 Carpenter St., Philadelphia, Pa.
Mall Tool Co., 7740 S. Chicago Ave., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manistee Iron Works Co., Manistee, Mich.
Manley Products Corp., York, Pa.
Mann Edge Tool Co., Lewistown, Pa.
Manufacturers' Belt Hook Co., 1315-21 W. Congress St., Chicago, Ill.
Manufacturers Brush Co., The, 12501 Elmwood Ave., Cleveland, Ohio.
Manufacturers Equipment Co., The, Michigan Ave., Dayton, Ohio.
Manufacturing Equipment & Engineering Co., Marble St., Framingham, Mass.
Manzel Brothers Co., 315 Babcock St., Buffalo, N. Y.
Marathon Electric Mfg. Co., Wausau, Wis.
Marchant, Geo. F., Co., 1420 S. Rockwell St., Chicago, Ill.
Marcy Tool Works, Inc., Putnam, Conn.
Marietta Valve Cup Co., The, 178 Post St., Marietta, Ohio.
Marion Machine, Foundry & Supply Co., Box 685, Marion, Ind.
Marion Malleable Iron Works, Box 689, Marion, Ind.
Marion Steam Shovel Co., The, Marion, O.
Maris Brothers, Inc., 56th St. & Grays Ave., Philadelphia, Pa.
Mark, Clayton & Co., 20 N. Wacker Drive, Chicago, Ill.
Market Forge Co., Garvey St., Everett, Mass.
Markwell Manufacturing Co., Inc., 200 Hudson St., New York, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), 205 E. 22nd St., Kansas City, Mo.
Mars Co., The, 215-217 S. River St., Aurora, Ill.
Marsh, Chas. W., Co., Hudson & Michigan Sts., Muskegon, Mich.
Marsh, Jas. P., & Co., 2073 Southport Ave., Chicago, Ill.
Marsh Valve Co., 4th St. & Brigham Rd., Dunkirk, N. Y.
Marshalltown Trowel Co., Marshalltown, Iowa.
Martell Packings Co., The, 333 E. Bridge St., Elyria, Ohio.
Martin, H. P., & Sons, 801 W. 12th St., Owensboro, Ky.
Martin Machine Co., Inc., off 1st St., Montague, Mass.
Maryland Bolt & Nut Co., The, Mt. Washington, Baltimore, Md.
Mason Brush Works, 38 Austin St., Worcester, Mass.
Mason Regulator Co., 1190 Adams St., Boston, Mass.
Mason, Volney W., & Co., 263 Summer St., Boston, Mass.
Massachusetts Machine Shop, Inc., 817 Albany St., Boston, Mass.
Massasoit Mfg. Co., 136 Pocasset St., Fall River, Mass.
Massey Machine Co., Pearl St., Watertown, N. Y.
Mast, Foos & Co., 34 N. Isabella St., Springfield, Ohio.
Master-Craft Corp., 825 Cobb Ave., Kalamazoo, Mich.
Master Electric Co., The, 100 Davis Ave., Dayton, Ohio.
Master Lock Co., 918-926 W. Juneau Ave., Milwaukee, Wis.
Master Lubricants Co., Meadow & Jackson Sts., Philadelphia, Pa.
Master Products Co., The, 6400 Park Ave., S. E., Cleveland, Ohio.
Master Rule Mfg. Co., Inc., 815 E. 136th St., New York, N. Y.
Master Woodworker Mfg. Co., 612 Brush St., Detroit, Mich.
Matchless Metal Polish Co., 840 W. 49th St., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Mattatuck Mfg. Co., The, 1900 E. Main St., Waterbury, Conn.
Matthews, Jas. H., & Co., 3942 Forbes St., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill.
Maydole, David, Tool Corp., Norwich, N. Y.
Maurey Manufacturing Corp., 2907-15 S. Wabash Ave., Chicago, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mechanical Devices Co., Bell St., Bloomington, Ill.
Mechanical Rubber Co., The, 1 Market St., Passaic, N. J.
Medart Co., The, 3500 DeKalb St., St. Louis.
Medart, Fred, Mfg. Co., Potomac & DeKalb Sts., St. Louis, Mo.
Medina Iron & Brass Co., 528 East Ave., Medina, N. Y.
Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio.
Meier Electric and Machine Co., 3525 E. Washington St., Indianapolis, Ind.
Memphis Machine Works, 171 Vance St., Memphis, Tenn.
Menasha Wood Split Pulley Co., 674 Tayco St., Menasha, Wis.
Menaugh & Co., 605 Washington Blvd., Chicago, Ill.
Merchant & Evans Co., 2035 Washington Ave., Philadelphia, Pa.
Merco Nordstrom Valve Co., 343 Sansome St., San Francisco, Calif.
Mercoid Corp., The, 4201 Belmont Ave., Chicago, Ill.
Meriam Co., The, 1955 W. 112th St., Cleveland, Ohio.
Merkle Broom Co., Paris, Ill.
Merrell Manufacturing Co., 857 Curtis St., Toledo, Ohio.
Merrick Scale Mfg. Co., 180 Autumn St., Passaic, N. J.
Merriman Bros., Inc., 185 Amory St., Boston, Mass.
Messinger Bearings, Inc., D St., above Erie, Philadelphia, Pa.
Messmer Brass Co., 2700 S. 7th St., St. Louis, Mo.
Metal Saw & Machine Co., Inc., 40 Napier St., Springfield, Mass.
Metal Specialties Mfg. Co., 3200 Carroll Ave. at Kedzie Ave., Chicago, Ill.
Mettalizing Co. of America, Inc., 1218 Long Beach Ave., Los Angeles, Cal.
Metallo Gasket Co., 10-18 Bethany St., New Brunswick, N. J.
Metzgar Co., The, 503-515 Grandville Ave., Grand Rapids, Mich.
Meurer Steel Barrel Co., Inc., 105 Ave. L., Newark, N. J.
Mey Chain Belt Co., 82 Washington St., Buffalo, N. Y.
Meyer Coupling Co., Inc., 324 N. San Pedro St., Los Angeles, Calif.
Michigan Engine Valve Co., 437 West Columbia St., Detroit, Mich.
Michigan Leather Packing Co., Inc., 750 Fourteenth Ave., Detroit, Mich.
Michigan Pipe Co., 503 Phoenix Bldg., Bay City, Mich.
Michigan Smelting & Refining Co., 2512 E. Grand Blvd., Detroit, Mich.
Michigan Sprocket Chain Co., 7818 Jefferson Ave., W., Detroit, Mich.
Michigan Wire Cloth Co., 2112 Howard St., Detroit, Mich.
Micro Corp., The, Bettendorf, Iowa.
Midland Mfg. Co., 67 Jennings Ave., Ft. Worth, Tex.
Mid-West Abrasive Co., 2189 Beaufait Ave., Detroit, Mich.
Midwest Broom Manufacturing Co., Half Ave. & Clinton St., Circleville, Ohio.
Midwest Piping & Supply Co., Inc., 1420 S. Second St., St. Louis, Mo.
Mid-West Screw Product Co., Main & St. George Sts., St. Louis, Mo.
Milbradt Mfg. Co., 2410-12 N. 10th St., St. Louis, Mo.
Milburn, Alexander, Co., The, 1416-1428 W. Baltimore St., Baltimore, Md.
Miley, L. J., Co., Inc., 1462 S. Michigan Ave., Chicago, Ill.
Miller, E. L., Mfg. Co., 22 W. 3rd St., Kansas City, Mo.
Miller Electric Mfg. Co., 1134 W. Wisconsin Ave., Appleton, Wis.
Miller Improved Gas Engine Co., The, Fair & Plum Sts., Springfield, Ohio.
Miller Machine Works, Springs, Pa.
Miller Mfg. Co., 124 Main St., Cedar Falls, Iowa.
Miller Peerless Manufacturing Co., 325 N. Curtis St., Chicago, Ill.
Miller Rubber Co., The, 1247 High St., Akron, Ohio.
Miller Tool & Mfg. Co., Inc., 1725-41 16th St., Detroit, Mich.
Miller, Walter W., Co., 557 E. Washington St., Indianapolis, Ind.
Millers Falls Co., Greenfield, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Milton Manufacturing Co., The, Milton, Pa.
Milwaukee Brush Manufacturing Co., The, 2236 N. 30th St., Milwaukee, Wis.
Milwaukee Electric Tool Corp., 54th & Rogers St., Milwaukee, Wis.
Milwaukee Hardware Co., Wm. Bolles, Prop., 120 Clinton St., Milwaukee, Wis.
Milwaukee Leather Belting Co., 508 N. Water St., Milwaukee, Wis.
Milwaukee Steam Appliance Co., West Allis, Wis.
Milwaukee Valve Co., 2375 S. Burrell St., Milwaukee, Wis.
Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh, Pa.
Minneapolis Honeywell Regulator Co., 2747 4th Ave., S., Minneapolis, Minn.
Minnesota Mining & Mfg. Co., Forest & Fauquier Sts., St. Paul, Minn.
Minnich Machine Works, Landisville, Pa.
Misener Mfg. Co., Inc., 326 E. Washington St., Syracuse, N. Y.
Missouri Belting Co., 1021 S. Grand Blvd., St. Louis, Mo.
Mitchell, W. K., & Co., 2840 Ellsworth St., Philadelphia, Pa.
Mitts and Merrill, 1009 S. Water St., Saginaw, Mich.
Moak Machine & Tool Co., 25-47 Connor St., Port Huron, Mich.
Moccasin Bushing Co., 2000 Chestnut St., Chattanooga, Tenn.
Mockbee, C. M., Co., 816 E. Pearl St., Cincinnati, Ohio.

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Modern Engineering Co., 3411-13 Pine Blvd., St. Louis, Mo.
Modern Grinder Mfg. Co., 64 Reed St., Milwaukee, Wis.
Modern Machine Tool Co., 601 S. Water St., Jackson, Mich.
Modern Mfg. Co., The, 4734 Hough Ave., Cleveland, Ohio.
Modine Mfg. Co., 17th St., Racine, Wis.
Moeller Instrument Co., Inc., 261-5 Sumpter St., Brooklyn, N. Y.
Moffatt Machinery Mfg. Co., Third St., Charlotte, N. C.
Mohn Machine Co., 230 Wood St., Reading, Pa.
Moline Malleable Iron Co., St. Charles, Ill.
Moline Tool Co., 102 20th St., Moline, Ill.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Moloney Belting Co., 1291 Elston Ave., Chicago, Ill.
Moltrup Steel Products Co., 14th St. & 2nd Ave., Beaver Falls, Pa.
Monarch Cap Screw & Mfg. Co., The, 5906 Park Ave., Cleveland, Ohio.
Monarch Machine Tool Co., The, Sidney, Ohio.
Monarch Metal Co., 119 S. Lincoln St., Chicago, Ill.
Monarch Soot Remover Co., Inc., 261 Franklin St., Boston, Mass.
Mont, A. W., & Co., Inc., Plainville, Conn.
Moore Flange Corp., 103 Park Ave., New York, N. Y.
Moore-Master Mfg. Co., 3445-47 N. Western Ave., Chicago, Ill.
Moore Steam Turbine Corp., 38 Coats St., Wellsville, N. Y.
Moore & White Co., The, 15th St. & Lehigh Ave., Philadelphia, Pa.
Moran Flexible Steam Joint Co., 217 W. Main St., Louisville, Ky.
Morgan Vise Co., 110 N. Jefferson St., Chicago, Ill.
Morganmade, Inc., 151 Congress St., Keene, N. H.
Morrill, Chas., Inc., 100 Lafayette St., New York, N. Y.
Morris Machine Works, Baldwinsville, N.Y.
Morris Metallic Packing Co., Lehigh Ave. & Mutter St., Philadelphia, Pa.
Morris Truck & Wheel Co., Inc., 760-790 S. 42nd St., Philadelphia, Pa.
Morrison Bros., 24th & Elm Sts., Dubuque, Iowa.
Morse Chain Co., Ithaca, N. Y.
Morse Grate Bar Co., Inc., 86 Weybosset St., Providence, R. I.
Morse Twist Drill & Machine Co., 163 Pleasant St., New Bedford, Mass.
Morton Manufacturing Co., Muskegon Heights, Mich.
Moseley Lathe Co., The, 162 Brook St., Elgin, Ill.
Moss, Henry, & Co., Inc., 113 53rd St., Brooklyn, N. Y.
Moto Meter Gauge & Equipment Corp., 449 Hamilton St., Toledo, Ohio.
Mott Sand Blast Mfg. Co., Inc., 4611-4621 Flournoy St., Chicago, Ill.
Mountville Mfg. Co., Mountville, Pa.
Mueller Brass Co., 1925 Lapeer Ave., Port Huron, Mich.
Muejler Co., 512 W. Cerro Gordo St., Decatur, Ill.
Mulconroy Co., Inc., 54th & Jefferson Sts., Philadelphia, Pa.
Multi-Seal Manufacturing Co., 123 N. Jefferson St., Chicago, Ill.
Mummert-Dixon Co., Philadelphia & Gay Sts., Hanover, Pa.
Murdock, M. F., The, Co., 310 Water St., Akron, Ohio.
Murphy, E. L., 38 S. Dearborn St., Chicago
Murphy Metals Co., 7 S. Dearborn St., Chicago, Ill.
Murray Iron Works Co., 1106 Washington St., Burlington, Iowa.
Murray, William H., 9121 108th St., Richmond Hill, New York, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.

N

N. A. C. Corporation, The, Ninth & Cooper Sts., Camden, N. J.
Nagle Engine & Boiler Works, 234 E. 16th St., Erie, Pa.
Napier Saw Works, Inc., 22 Cottage St., Middletown, N. Y.
Nason Manufacturing Co., 71 Fulton St., New York, N. Y.
National Acme Co., The, Coit Rd. & E. 131st St., Cleveland, Ohio.
National Asbestos Mfg. Co., The, 163 Henderson St., Jersey City, N. J.
National Boiler Protector Co., 740-41 Reibold Bldg., Dayton, Ohio.
National Carbide Sales Corp., Lincoln Bldg., 60 E. 42nd St., New York, N. Y.
National Carbon Co., Inc., P. O. Box 400, Cleveland, Ohio.
National Copper Paint Corp., 440 N. Wells St., Chicago, Ill.
National Copper & Smelting Co., The, 1862 E. 123rd St., Cleveland, Ohio.
National Dry Kiln Co., The, 446 W. Georgia St., Indianapolis, Ind.
National Fan & Blower Corp., 543 Washington, Blvd., Chicago, Ill.
National Lead Co., 111 Broadway, New York, N. Y.
National Lock Co., Rockford, Ill.
National Lock Washer Co., The, 40 Herman St., Newark, N. J.
National Machine Tool Co., 1536 Clark St., Racine, Wis.
National Manufacturing Corp., Tonawanda, N. Y.
National Motor Bearing Co., Inc., 1100 78th Ave., Oakland, Calif.
National Radiator Corp., 221 Central Ave., Johnstown, Pa.
National Screw & Mfg. Co., The, 2440 E. 75th St., Cleveland, Ohio.
National Transit Pump & Machine Co., 19 N. Petroleum St., Oil City, Pa.
National Tube Co., Frick Bldg., Pittsburgh, Pa.
National Twist Drill & Tool Co., 6522-44 Brush St. at E. Grand Blvd., Detroit, Mich.
Naylor Pipe Co., 1230 92nd St., Chicago, Ill.
Neely Nut & Bolt Co., 2101 Wharton St., Pittsburgh, Pa.
Neilan Co., Ltd., (Division of Mason Regulator Co.), 641-651 Santa Fe Ave., Los Angeles, Calif.
Nelson Bros. Co., Saginaw, Mich.
Nelson, L. R., Mfg. Co., Inc., 1725 S. Washington St., Peoria, Ill.
Never Slip Safety Clamp Co., Grand Central Annex, P. O. Box 448, New York, N.Y.
Newark Brush & Scraper Co., 390-396 Nye Ave., Irvington, N. J.
Newark Wire Cloth Co., 351 Verona Ave., Newark, N. J.
Newbury, Jay H., & Sons, Inc., 67 Spring St., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
New England Screw Co., 44-54 Farnsworth St., Boston, Mass.
Newhall Chain Forge & Iron Co., 48 W. Broadway, New York, N. Y.
New Jersey Zinc Co., The, 160 Front St., New York, N. Y.
Newman Brothers, Inc., 660-670 W. Fourth St., Cincinnati, Ohio.
New Process Twist Drill Co., 34 Court St., Taunton, Mass.
Newton Steel Co., (Subsidiary of Republic Steel Corp.), Fisher Bldg., Detroit, Mich.
New York Belting & Packing Co., 1 Market St., Passaic, N. J.
New York Brass Foundry Co., 405 Broome St., New York, N. Y.
Niagara Machine & Tool Works, 637-697 Northland Ave., Buffalo, N. Y.
Nice Ball Bearing Co., 30th St. and Hunting Park Ave., Philadelphia, Pa.
Nicholson, W. H., & Co., 12 Oregon St., Wilkes Barre, Pa.
Nicholson File Co., 23 Acorn St., Providence, R. I.
Niedner's Chas., Sons Co., 10-20 James St., Malden, Mass.
Nixdorff-Krein Mfg. Co., 900 Howard St., St. Louis, Mo.
Noble & Westbrook Mfg. Co., The, 20 Westbrook St., East Hartford, Conn.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Norristown Magnesia & Asbestos Co., Norristown, Pa.
North Bros. Mfg. Co., American St. and Lehigh Ave., Philadelphia, Pa.
Northern Incandescent Lamp Co., Hoboken, N. J.
Northern Metallic Packing Co., 429 University Ave., St. Paul, Minn.
Northern Specialty Co., 808 Union St., Utica, N. Y.
Northfield Foundry & Machine Co., Northfield, Minn.
Northwest Lead Co., 1744 4th Ave., S., Seattle, Wash.
Northwestern Barb Wire Co., Sterling, Ill.
Norton Belting Co., 21 Cushing Rd., Wellesley Hills, Mass.
Norton Company, 1 New Bond St., Worcester, Mass.
Nott, W. S., Co., 201-11 N. 3rd St., Minneapolis, Minn.
Novelty Steam Boiler Works Co., The, Clare & Kloman Sts., Baltimore, Md.
Noyes, B. B., Co., 106 Hope St., Greenfield, Mass.
Nugent, Wm. W., & Co., 410-412 N. Hermitage Ave., Chicago, Ill.
Nunn Brass Works, 17 Wentworth St., Rochester, N. Y.
Nute, McGehee, Geary Co., Inc., The, S. Main St., Chambersburg, Pa.
Nutting Truck Co., 1122 W. Division St., Faribault, Minn.
Nye Steam Pump & Machinery Co., 621 S. Kolmar Ave., Chicago, Ill.
Nye Tool & Machine Works, The, 4120 Fullerton Ave., Chicago, Ill.

O

O. K. Clutch & Machinery Co., Columbia, Pa.
O. K. Tool Holder Co., The, Shelton, Conn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N.Y.
Ohio Brass Co., Mansfield, Ohio.
Ohio Buff & Mfg. Co., The, 610 Burns St., Cincinnati, Ohio.
Ohio Forge & Machine Corp., 3010 Woodhill Rd., Cleveland, Ohio.
Ohio Injector Co., The, 243 Main St., Wadsworth, Ohio.
Ohio Knife Co., The, Dreman Ave. & B. & O. R. R., Cincinnati, Ohio.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Ohlen-Bishop Co., The, Ingleside Ave., Columbus, Ohio.
Okonite Co., The, Passaic, N. J.
Oliver-Barth Jack Co., 1669 S. First St., Milwaukee, Wis.
Oliver Machinery Co., 1011 Coldbrook St., N. E., Grand Rapids, Mich.
Oliver Motorcraft Corp., 2532 S. Wabash Ave., Chicago, Ill.
Oliver, W. W., Mfg. Co., The, 1483 Niagara St., Buffalo, N. Y.
O'Meara Belting Co., 716 N. 28th Ave., Omaha, Neb.
Onan, D. W., & Sons, 43 Royalston Ave., Minneapolis, Minn.
Oneida Wood Pulley Co., Inc., 436 W. Railroad St., Oneida, N. Y.
Onesti Bros., Highland Park, Ill.
Onsrud Machine Works, Inc., 3903 Palmer St., Chicago, Ill.
Orange Roller Bearing Co., 557 Main St., Orange, N. J.
Orangeville Mfg. Co., Orangeville, Pa.
Orr & Sembower, Inc., Reading, Pa.
Orum, S. R. M., Inc., 503 N. 11th St., Philadelphia, Pa.
Osborn Manufacturing Co., The, 5401 Hamilton Ave., Cleveland, Ohio.
Osgood, J. L., Machinery & Tool Co., Inc., 43 Pearl St., Buffalo, N. Y.
Oster-Williams, 2057 E. 61st Pl., Cleveland, Ohio.
Otley Paint Mfg. Co., 1742 N. Winchester Ave., Chicago, Ill.
Ottemiller, Wm. H., Co., Inc., The, Pattison St. and M. & P. R. R., York, Pa.
Outing Manufacturing Company, Inc., 571 E. Jackson Blvd., Elkhart, Ind.

P

Paasche Airbrush Co., 1902 Diversey Parkway, Chicago, Ill.
Pacific Chemical Co., 114 College St., Los Angeles, Calif.
Pacific Mfg. & Equipment Co., 3136 Folsom Blvd., San Francisco, Calif.
Pacific States Cast Iron Pipe Co., Box 18, Provo, Utah.
Pacific Wire Rope Co., 1840 E. 15th St., Los Angeles, Cal.
Page Belting Co., Concord, N. H.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Palmer-Bee Co., 1701 Poland Ave., Detroit, Mich.
Pancoast, Henry B., Co., 950 N. Front St., Philadelphia, Pa.
Pannier Bros. Stamp Co., 207-209 Sandusky St., Pittsburgh, Pa.
Paraffine Companies, Inc., The, 475 Brannan St., San Francisco, Calif.
Parker Appliance Co., The, 10320 Berea Road, Cleveland, Ohio.
Parker, Charles Co., The, 48 Elm St., Meriden, Conn.
Parker Cup & Specialty Works, Inc., River Ave., Parkers Landing, Pa.
Parker-Kalon Corp., 200 Varick St., New York, N. Y.
Parker Rust Proof Co., 2177 Milwaukee Ave., E., Detroit, Mich.
Parks, Harry S., Co., 3334 Market St., Philadelphia, Pa.
Patent Scaffolding Co., The, 1550 Dayton St., Chicago, Ill.
Patterson Lubricating Co., 85 Purchase St., Boston, Mass.
Paul, J. C., & Co., 930 Roscoe St., Chicago, Ill.
Paulus, Jos. C., & Co., 2507 Potter St., Philadelphia, Pa.
Pawtucket Manufacturing Co., 327 Pine St., Pawtucket, R. I.
Payson Mfg. Co., The, 2920 Jackson Blvd., Chicago, Ill.
Peck, Stow & Wilcox Co., Center St., Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Peerless Machine Co., 1615-17 Racine St., Racine, Wis.
Pels, Henry, & Co., Inc., 90 West St., New York, N. Y.
Penberthy Injector Co., 1242 Holden Ave., Detroit, Mich.
Penn Brass & Copper Co., 1124 W. 18th St., Erie, Pa.
Pennsylvania Boiler Works, Erie, Pa.
Pennsylvania Flexible Metallic Tubing Co. 72nd & Powers Lane, Philadelphia, Pa.
Pennsylvania Furnace & Iron Co., 316 Pine St., Warren, Pa.
Pennsylvania Pump & Compressor Co., Easton, Pa.

Peninsular Grinding Wheel Co., 729 Meldrum Ave., Detroit, Mich.
Perkes, Charles, Co., 1508 N. Mascher St., Philadelphia, Pa.
Perkins & Co., 562 Front Ave., N. W., Grand Rapids, Mich.
Perkins Glue Co., 632 Cannon Ave., Lansdale, Pa.
Perkins Marine Lamp Corp., 1943 Pitkin Ave., Brooklyn, N. Y.
Permutit Co., The, 440 4th Ave., New York, N. Y.
Peterson, F. W., Co., 117 Prince St., New York, N. Y.
Pfeiffer, John, & Co., 222 Race St., Philadelphia, Pa.
Pheoll Mfg. Co., 5714 West Roosevelt Rd., Chicago, Ill.
Philadelphia Belting Co., Sixth and Spring Garden Sts., Philadelphia, Pa.
Philadelphia Gear Works, Erie Ave. & G St., Philadelphia, Pa.
Philadelphia Grease Mfg. Co., The, 846-850 S. Swanson St., Philadelphia, Pa.
Philadelphia Pipe Bending Co., The, 4135-65 N. 5th St., Philadelphia, Pa.
Philadelphia Steel & Wire Corp., Penn and Belfield Aves., Philadelphia, Pa.
Philadelphia Thermometer Co., 915 Filbert St., Philadelphia, Pa.
Phoenix Fire Extinguisher Co., 9 Grove St., Norwich, Conn.
Pierce, Wm. B., Co., The, 45 N. Division St., Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., 606-608 & 610 S. 3rd St., St. Louis, Mo.
Pioneer Rubber Mills, 345-353 Sacramento St., San Francisco, Calif.
Pipe Saver Corp. of America, Carthage, N. Y.
Piqua Munising Wood Products Co., The, Union Trust Bldg., Cleveland, Ohio.
Pittsburgh Brass Mfg. Co., Penn Ave. at 32nd St., Pittsburgh, Pa.
Pittsburgh Crushed Steel Co., 61st St. & A. V. R. R., Pittsburgh, Pa.
Pittsburgh Engineering Works, P. O. Box 1125, Pittsburgh, Pa.
Pittsburgh Plate Glass Co., Brush Division, Carroll Station P. O., Baltimore, Md.
Pittsburgh Screw & Bolt Corp., P. O. Box 752, Pittsburgh, Pa.
Pittsburgh Thermoline Co., 45 S. 20th St., Pittsburgh, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Pittsburgh Valve & Fittings Co., Newel St., Barberton, Ohio.
Plant Engineering & Equipment Co., Inc., 68 Summit St., Brooklyn, N. Y.
Plews Oiler Co., 258 Sexton Bldg., Minneapolis, Minn.
Plomb Tool Co., 2209 Santa Fe St., Los Angeles, Calif.
Plumb, Fayette R., Inc., 4837 James St., Philadelphia, Pa.
Plymouth Cordage Co., North Plymouth, Mass.
Plymouth Foundry and Machine Co., Plymouth, Wis.
Pollard Bros. Mfg. Co., 4444 N. Knox Ave., Chicago, Ill.
Pomona Pump Co., 206 E. Commercial St., Pomona, Calif.
Portable Power Tool Corp., Warsaw, Ind.
Porter, H. K., Inc., 6 Ashland St. Everett, Mass.
Porter Manufacturing Co., (Division of Monarch Metal Co.), 119 S. Lincoln St., Chicago, Ill.
Positive Lock Washer Co., The, 181 Miller St., Newark, N. J.
Powell, Wm., Co., The, 2525 Spring Grove Ave., Cincinnati, Ohio.
Power Manufacturing Co., The, Cheney Ave. (P. O. Box 508), Marion, Ohio.
Powers Regulator Co., The, 2720 Greenview Ave., Chicago, Ill.
Pratt & Whitney Co., 436 Capitol Ave., Hartford, Conn.
Pratt, Wm. E., Mfg. Co., Henderson & Norton Aves., Joliet, Ill.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Prentiss Vise Co., 110 Lafayette St., New York, N. Y.
Prier Brass Mfg. Co., 15th St. & Blue River, Kansas City, Mo.
Procunier Safety Chuck Co., 18 S. Clinton St., Chicago, Ill.
Products Manufacturing Co., 416 N. Milwaukee St., Milwaukee, Wis.
Propellair, Inc., 1345 Lagonda Ave., Springfield, Ohio.
Protection Products Mfg. Co., New Center Bldg., Detroit, Mich.
Pulmosan Safety Equipment Corp., 176 Johnson St., Brooklyn, N. Y.
Pulsometer Steam Pump Co., 485 S. 21st St., Irvington, N. J.
Pumpless Blow Torch Co., 909 Keystone Bldg., Pittsburgh, Pa.
Punxsutawney Foundry and Machine Co., Railroad St., Punxsutawney, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Pyott Foundry & Machine Co., 330 N. Sangamon St., Chicago, Ill.
Pyrene Manufacturing Co., 560 Belmont Ave., Newark, N. J.

Q

Quadriga Mfg. Co., The, 213 W. Grand Ave., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Quickwork Co., The, 900 Spaulding Ave., Chicago, Ill.
Quigley Co., Inc., 56 W. 45th St., New York.
Quincy Compressor Co., 217 Maine St., Quincy, Ill.

R

R. S. Products Corp., 4530 Germantown Ave., Philadelphia, Pa.
Racine Tool & Machine Co., 1700 State St., Racine, Wis.
Rahmann, Geo., & Co., 31 Spruce St., New York, N. Y.
Ralco Manufacturing Co., 123-141 North Albany Ave., Chicago, Ill.
Ramsey Chain Co., Inc., Albany, N. Y.
Randle Machinery Co., The, 1723 Powers St., Cincinnati, Ohio.
Raniville, F., Co., 241 Pearl St., Grand Rapids, Mich.
Rapid Spring Co., The, Imperial Bldg., Pittsburgh, Pa.
Rauch Manufacturing Co., The, Front & Joplin Sts., Galena, Kan.
Rauschenberger, John, Co., 423 N. Plankinton Ave., Milwaukee, Wis.
Rawlplug Co., Inc., The, 98 Lafayette St., New York, N. Y.
Raybestos Division of Raybestos-Manhattan, Inc., 1437 Railroad Ave., Bridgeport, Conn.
Ray Pressure Snubber Co., 315 E. Fifth St., Charlotte, N. C.
Reading Chain & Block Corp., 2150 Adams St., Reading, Pa.
Reading Iron Co., 401 N. Broad St., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Reardon Co., The, 2201 N. Second St., St. Louis, Mo.
Red Cross Mfg. Co., The, Bluffton, Ind.
Red Devil Manufacturing Co., P. O. Box 244, Palatine, Ill.
Red Star Products Corp., P. O. Sta. D, Cleveland, Ohio.
Red Top Auger Co., The, Birmingham, Ala.
Reed, Francis Co., 43 Hammond St., Worcester, Mass.
Reed Manufacturing Co., Erie, Pa.
Reed-Prentice Corp., 677 Cambridge St., Worcester, Mass.
Reed & Prince Mfg. Co., 1 Duncan Ave., Worcester, Mass.
Rees', Hans, Sons, 39 Frankfort St., New York, N. Y.
Reeves Pulley Co., 1225 7th St., Columbus, Ind.
Refractory & Engineering Corp., 381 Fourth Ave., New York, N. Y.
Reichel & Drews, 452-4-6 N. Ashland Ave., Chicago, Ill.
Reiter, G. C., Box 408, 1917 Henry Ave., S. W., Canton, Ohio.
Remington Rand, Inc., 465 Washington St., Buffalo, N. Y.
Republic Flow Meters Co., 2240 Diversey Parkway, Chicago, Ill.
Republic Rubber Co., The, Albert St., Youngstown, Ohio.
Republic Steel Corp., Republic Bldg., Cleveland, Ohio.
Republic Steel Package Co., The, 7930 Jones Road, Cleveland, Ohio.
Revere Copper and Brass, Inc. (Dallas Division), 2200 N. Natchez Ave., Chicago.
Revolvator Co., North Bergen, N. J.
Reznor Mfg. Co., E. Market St., Mercer, Pa.
Rhoads, J. E., & Sons, 35 N. 6th St., Philadelphia, Pa.
Rhode Island Fittings Co., Hills Grove, R. I.
Rhodes Manufacturing Co., The, Ames St., Waltham, Mass.
Rhodes Packing Co., Chatham, N. J.
Rhopac Products Corp., 2354 Lincoln Ave., Chicago, Ill.
Rich Pump and Ladder Co., Inc., The, 1028 Depot St., Cincinnati, Ohio.
Richard Badger-Packard Co., 3423 W. Vliet St., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., 3rd & Lake Sts., Aurora, Ill.
Richardson, Edro, Brass Co., The, Monument & Kresson Sts., Baltimore, Md.
Richmond Belt Dressing Mfg. Co., Inc., P. O. Box 621, Richmond, Va.
Rickersberg Brass Co., The, 3830 Kelley Ave., Cleveland, Ohio.
Ridge Tool Co., The, Elyria, Ohio.
Rinald, H., Co., P. O. Box 4051, West Philadelphia, Pa.
Rinn, Albert E., Co., Allentown, Pa.
Riverside Mills, Inc., 1 11th St., Augusta, Ga.
Rivet Cutting Gun Co., 125 E. 3rd St., Cincinnati, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, 1345 Lagonda Ave., Springfield, Ohio.
Roberts Brass Co., 176-180 Lincoln Ave., Milwaukee, Wis.
Roberts Brass Mfg. Co., The, 5435 Fort St., W., Detroit, Mich.
Roberts Manufacturing Co., 12 Beacham St., Everett, Mass.
Robertson, W., Machine & Foundry Co., 56-58 Rano St., Buffalo, N. Y.
Robinson, D., Sons, 1342 Harper Ave., Detroit, Mich.
Robinson Fire Apparatus Mfg. Co., 4250-70 N. 20th St., St. Louis, Mo.
Robinson Mfg. Co., Baldwin & Kelsey Sts., Waterbury, Conn.
Rochester Can Co., 109 Hague St., Rochester, N. Y.
Rochester Lead Works, 380 Exchange St., Rochester, N. Y.
Rochester Machine Screw Co., 161-175 Clarissa St., Rochester, N. Y.
Rochester Ropes, Inc., Jamaica, N. Y.
Rock Island Mfg. Co., 1533 1st St., Rock Island, Ill.
Rock River Machine Co., 413 N. Main St., Janesville, Wis.
Rockford Brass Works, 700 S. Main St., Rockford, Ill.
Rockford Drilling Machine Co., Catherine St., Rockford, Ill.
Rockford Machine Tool Co., 2400 Kishwaukee St., Rockford, Ill.
Rockford Screw Products Co., 2501 Ninth St., Rockford, Ill.
Rockwood Mfg. Co., The, 1801 English Ave., Indianapolis, Ind.
Rockwood Sprinkler Co., 38 Harlow St., Worcester, Mass.
Roebling's, John A., Sons Co., 640 S. Broad St., Trenton, N. J.
Rogers Metal Works, 2123 Jefferson St., Kansas City, Mo.
Rogers, Samuel C., & Co., 191-205 Dutton Ave., Buffalo, N. Y.
Roller Bearing Company of America, Whitehead Road, Trenton, N. J.
Rome Brass & Copper Co. (Division of Revere Copper and Brass, Inc.), Bouck St., Rome, N. Y.
Romec Pump Co., 333 E. Bridge St., Elyria, Ohio.
Roots-Connersville Blower Corp., Connersville, Ind.
Rope Fire Escape Co., 924 N. 13th St., Philadelphia, Pa.
Roper, Geo. D., Corp., Blackhawk Ave., Rockford, Ill.
Rose, Frank, Mfg. Co., Hastings, Neb.
Ross Heater & Mfg. Co., Inc., 1407-11 West Ave., Buffalo, N. Y.
Ross Mfg. Co., The, 6402 Cedar Ave., Cleveland, Ohio.
Round, David, and Son, Stop 3, A. B. C. Line, Cleveland, Ohio.
Rowe Manufacturing Co., 614 W. 3rd St., Galesburg, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Rowell Mfg. Co., 713-721 N. Union St., Appleton, Wis.
Royal Electric Co., Inc., Avon, Mass.
Royal Metal Mfg. Co., 1138-40 S. Michigan Ave., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Main St., Royersford, Pa.
Rubberhide Co., Trenton, N. J.
Rubberset Co., 75 West St., New York, N. Y.
Rubberwear Glove Co., 483 Kenmore Blvd., Akron, Ohio.
Ruberoid Co., The, 500 Fifth Ave., New York, N. Y.
Ruby Chemical Co., The, 76 McDowell St., Columbus, Ohio.
Ruemelin Mfg. Co., S. 1570 First St., Milwaukee, Wis.
Ruleta Co., Inc., 22 Warren St., New York, N. Y.
Rumsey Pump Co., Ltd., Johnston St., Seneca Falls, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Midland Ave., Port Chester, N. Y.
Russell Electric Co., 340 W. Huron St., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Ryerson, Joseph T., & Son, Inc., 2558 W. 16th St., Chicago, Ill.

S

S. E. T. Valve and Hydrant Co., 50 Church St., New York, N. Y.
S.K.F. Industries, Inc., Front St. & Erie Ave., Philadelphia, Pa.
Sackett, H. B., Screen & Chute Co., 1685 Elston Ave., Chicago, Ill.
Sacramento Pipe Works, 116 N. 16th St., Sacramento, Calif.
Safety Belt-Lacer Co., Toledo Factory Bldg., Toledo, Ohio.
Safety Equipment Service Co., The, 1228 St. Clair Ave., N. E., Cleveland, Ohio.
Safety Fire Extinguisher Co., The, 293 7th Ave., New York, N. Y.
Safety First Shoe Co., Holliston, Mass.
Safety Grinding Wheel & Machine Co., The, 2466 Columbus Ave., Springfield, Ohio.

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Safety Truck Brake Co., Inc., 112 N. Outegamie St., Appleton, Wis.
Safety Wrench & Appliance Co., 56 Commercial Ave., Worcester, Mass.
Saginaw Stamping & Tool Co., 90 Williamson St., Saginaw, Mich.
St. Louis Cordage Mills, 11th & Lafayette, St. Louis, Mo.
Salisbury, W. H., & Co., Inc., 401-421 N. Morgan St., Chicago, Ill.
Sampson Tool Co., Inc., 101 Walker St., New York, N. Y.
Samson Cordage Works, 89 Broad St., Boston, Mass.
Sands Mfg. Co., The, 5407 Sweeney Ave., Cleveland, Ohio.
Sandvik Saw & Tool Corp., 740 Washington Ave. N., Minneapolis, Minn.
Sandvik Steel, Inc., Woolworth Bldg., New York, N. Y.
Sanitary Washed Wiper Co., 19-25 E. South St., Indianapolis, Ind.
Sarco Co., Inc., 183 Madison Ave., New York, N. Y.
Sargent Co., 2073 Southport Ave., Chicago.
Sargent & Co., P. O. Box 1540, New Haven, Conn.
Saylor-Beall Manufacturing Co., 1501 E. Philadelphia Ave., Detroit, Mich.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schade Valve Mfg. Co., 2527 N. Bodine St., Philadelphia, Pa.
Schaefer & Beyer, Inc., 50-52 Bragaw Ave., Newark, N. J.
Schaefer Brush Mfg. Co., 1011 So. 2nd St., Milwaukee, Wis.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Schauer Machine Co., The, 905 Broadway, Cincinnati, Ohio.
Schieren, Chas A., Co., 38-42 Ferry St., New York, N. Y.
Schollhorn, Wm., Co., The, 414 Chapel St., New Haven, Conn.
Schultz, A. L., & Son, 1675 Elston Ave., Chicago, Ill.
Schutte & Koerting Co., 12th & Thompson Sts., Philadelphia, Pa.
Schwenk Safety Device Corp., 80 Broad St., New York, N. Y.
Scott Valve Manufacturing Co., 3963 McKinley Ave., Detroit, Mich.
Scovill Mfg. Co., 99 Mill St., Waterbury, Conn.
Scranton Pump Co., The, 1445 Meylert Ave., Scranton, Pa.
Scully-Jones & Co., 1901 S. Rockwell St., Chicago, Ill.
Scully Steel & Iron Co., 2364 S. Ashland Ave., Chicago, Ill.
Security Insert Co., 1424 Widener Bldg., Philadelphia, Pa.
Self Cleaning Strainer Co., 5125 S. Carpenter St., Chicago, Ill.
Self-Vulcanizing Rubber Co., Inc., 517-V, 605 W. Washington Blvd., Chicago, Ill.
Semler Co., Jeannette, Pa.
Sero Specialty Co., 2860 E. 84th St., Cleveland, Ohio.
Service Caster & Truck Co., The, 529 N. Albion St., Albion, Mich.
Shafer Bearing Corp., 621 S. Kolmar Ave., Chicago, Ill.
Shakeproof Lock Washer Co., 2501 N. Keeler Ave., Chicago, Ill.
Shaw-Box Crane & Hoist Co., Inc., Broadway & Park Ave., Muskegon, Mich.
Shaw Kendall Engineering Co., The, 120-130 S. Superior St., Toledo, Ohio.
Shawinigan Products Corp., Empire State Bldg., New York, N. Y.
Sheffield Steel Corp., Sheffield Station, Kansas City, Mo.
Sheldon Machine Co., 3253-55 Cottage Grove Ave., Chicago, Ill.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Sherman, H. B., Mfg. Co., 22 Barney St., Battle Creek, Mich.
Sherwin-Williams Co., The, 601 Canal Rd., N. W., Cleveland, Ohio.
Shingle-Gibb Leather Co., 54th St. & Grays Ave., Philadelphia, Pa.
Shortridge, Edwin G., & Co., 615 S. Armstrong St., Kokomo, Ind.
Shuron Optical Co., Inc., Geneva, N. Y.
Sibley Machine & Foundry Co., South Bend, Ind.
Sidney Steel Scraper Co., The, Sidney, Ohio.
Sight-Feed Generator Co., The, 6 North 16th St., Richmond, Ind.
Signal Electric Mfg. Co., Menominee, Mich.
Silver Lake Co., 99 Chauncy St., Boston, Mass.
Silvey Pipe Bender Co., 2215 Brighton Ave., Kansas City, Mo.
Simonds Saw and Steel Co., Fitchburg, Mass.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., 551-553 W. Lake St., Chicago, Ill.
Simplex Time Recorder Co., S. Lincoln, Gardner, Mass.
Simplex Wire & Cable Co., 79 Sidney St., Boston, Mass.
Skat Co., The, 1711 Park Ave., Hartford, Conn.
Skidmore Corp., St. Joseph, Mich.
Skilsaw, Inc., 3310 Elston Ave., Chicago, Ill.
Skinner Chuck Co., The, 344 Church St., New Britain, Conn.
Skinner, M. B., Co., 3502 W. Sample St., South Bend, Ind.
Slip Not Belting Corp., Kingsport, Tenn.
Slocomb, J. T., Co., 35 Oxford St., Providence, R. I.
Smith & Egge Division of The Turner & Seymour Mfg. Co., Lafayette & Allen Sts., Torrington, Conn.
Smith, F. P., & Co., Sharon Hill, Pa.
Smith & Kanzler, Inc., 516 Lidgerwood Ave., Elizabeth, N. J.
Smith Power Transmission Co., The, Penton Bldg., Cleveland, Ohio.
Smith & Serrell, 20 Washington Pl., Newark, N. J.
Smith Welding Equipment Corp., 2619-33 4th St., S. E., Minneapolis, Minn.
Smith, Winfield H., Inc., 20 Eaton St., Springville, N. Y.
Smooth-On Manufacturing Co., 568-574 Communipaw Ave., Jersey City, N. J.
Smyth-Despard Co., 800 Broad St., Utica, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Solarine Co., Smallwood & Eagle Sts., Baltimore, Md.
Somerville Iron Works, James St., Somerville, N. J.
South Bend Lathe Works, 425 E. Madison St., South Bend, Ind.
South Chester Tube Co., Front & Thurlow Sts., Chester, Pa.
Southington Hardware Co., Southington, Conn.
Southwestern Broom Mfg. Co., The, 501 N. 9th Ave., Evansville, Ind.
Spang, Chalfant & Co., Inc., Clark Bldg., Pittsburgh, Pa.
Spartan Glove Co., 469 Maryland Ave., Dayton, Ohio.
Spartan Saw Works, Inc., Springfield, Mass.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Speedway Manufacturing Co., 1834 S. 52nd Ave., Cicero, Ill.
Speer Carbon Co., Lincoln Ave., St. Marys, Pa.
Speidel Elevator Corp., 245 W. Buttonwood St., Reading, Pa.
Spray Engineering Co., 114 Central St., Somerville, Mass.
Springfield Waste Co., 109 Mill St., Springfield, Mass.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stafford Co., The, 205 W. Wacker Drive, Chicago, Ill.
Stalter Edge Tool Co., 321 Straight Ave., S. W., Grand Rapids, Mich.
Standard Appliance Corp., Dayton, Ohio.
Standard Asbestos Mfg. Co. of Chicago, 820 W. Lake St., Chicago, Ill.
Standard Belt Fastener Co., The, 168 Water St., Unionville, Conn.
Standard Electrical Tool Co., The, 1938-48 W. 8th St., Cincinnati, Ohio.
Standard Gage Co., Poughkeepsie, N. Y.
Standard Oil Co. of New York, The, 26 Broadway, New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Standard Shop Equipment Co., 82nd & Tinicum Ave., Philadelphia, Pa.
Standard Steel Specialty Co., P. O. Box 546, Beaver Falls, Pa.
Standard Thermometer, Inc., 65 Shirley St., Boston 19, Mass.
Standard Tool Co., The, 6918 Central Ave., Cleveland, Ohio.
Standard Union Co., Lockport, N. Y.
Stanley Belting Corp., 15 N. Jefferson St., Chicago, Ill.
Stanley Electric Tool Division, The Stanley Works, New Britain, Conn.
Stanley Rule & Level Plant, The, 111 Elm St., New Britain, Conn.
Stanley Works, The, 195 Lake St., New Britain, Conn.
Star Bit & Tool Co., 10th St. & 10th Ave., Rockford, Ill.
Star Expansion Bolt Co., 147 Cedar St., New York, N. Y.
Star Sanitary Rag Co., 2235 Ford Ave., Chicago, Ill.
Starline, Inc., 300 W. Front St., Harvard, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Steel and Tubes, Inc., (Subsidiary of Republic Steel Corp.), 224 E. 131 St., Cleveland, Ohio.
Steelcote Mfg. Co., 3418 Gratiot Ave., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., 20th & Ferry Sts., St. Louis, Mo.
Stephens-Adamson Mfg. Co., 121 Ridgeway Ave., Aurora, Ill.
Stephenson Mfg. Co., 2nd Ave. & Beekman St., Albany, N. Y.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Broad Ave., Tiffin, Ohio.
Sterling Products Co., 314-320 Curtis Bldg., Detroit, Mich.
Sterling Siren Fire Alarm Co., Inc., 56 Allen St., Rochester, N. Y.
Sterling Wheelbarrow Co., 7036 W. Walker St., Milwaukee, Wis.
Stevens Walden, Inc., 475 Shrewsbury St., Worcester, Mass.
Stimmel Winch Co., 37-24 22nd St., Long Island City, N. Y.
Stockham Pipe & Fittings Co., 4100 10th Ave., N., Birmingham, Ala.
Stow Flexible Shaft Co., 3623-25 Brandywine St., Philadelphia, Pa.
Stow, H. J. (Successor to Kenehan Steel Belt Fastener Co.), 163 W. Washington St., Chicago, Ill.
Stow Manufacturing Co., Inc., 443 State St., Binghamton, N. Y.
Strand, N. A., & Co., 5001 N. Lincoln St., Chicago, Ill.
Strauss & Buegeleisen, 30 Front St., Brooklyn, N. Y.
Streeter-Amet Co., 4101 Ravenswood Ave., Chicago, Ill.
Strickler, W. W., & Brothers, 538 E. Rich St., Columbus, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Strong, Carlisle & Hammond Co., The, 1392-1394 W. 3rd St., Cleveland, Ohio.
Stuart, D. A., Oil Co., 2727-2753 S. Troy St., Chicago, Ill.
Stulz-Sickles Co., 134 Lafayette St., Newark, N. J.
Sturtevant, B. F., Co., Damon St., Hyde Park, Boston, Mass.
Sullivan Brush Co., First St. & Wabash Ave., Terre Haute, Ind.
Sumet Co., 1543 Fillmore Ave., Buffalo, N. Y.
Sunnen Products Co., 7900 Manchester Ave., St. Louis, Mo.
Sun Oil Co., 1608 Walnut St., Philadelphia, Pa.
Sundstrand Machine Tool Co., 2531 11th St., Rockford, Ill.
Superior Flake Graphite Co., 33 S. Clark St., Chicago, Ill.
Superior Screw & Bolt Mfg. Co., Division of Federal Screw Works, Detroit, Mich.
Sutorbilt Corp., 2008 E. Slauson Ave., Los Angeles, Calif.
Sutton, C. N., Chemical Co., 4515 Ravenswood Ave., Chicago, Ill.
Sutton Tool Co., 2842 W. Grand Blvd., Detroit, Mich.
Swaby Mfg. Co., 2010 Marshall Blvd., Chicago, Ill.
Swartwout Co., The, 18511 Euclid Ave., Cleveland, Ohio.
Swartz & White Co., The, 243 Water St., Binghamton, N. Y.
Swayne-Robinson & Co., 225 Main St., Richmond, Ind.
Swett, Frank W., & Son, 1716-18 W. Adams St., Chicago, Ill.
Sweetland Waste Co., Inc., Jackson St., Canton, Mass.
Swift Lubricator Co., 729 W. 2nd St., Elmira, N. Y.
Syntron Co., 400 Lexington Ave., Pittsburgh, Pa.
Syracuse Steam Generator, Inc., South Ave. & Grant Pl., Syracuse, N. Y.

T

Taber Pump Co., 279 Elm St., Buffalo, N. Y.
Taft-Peirce Mfg. Co., 32 Mechanics Ave., Woonsocket, R. I.
Tagliabue, C. J., Mfg. Co., Park & Nostrand Ave., Brooklyn, N. Y.
Tait, A. A., Plainfield, N. J.
Talcott, W. O. & M. W., Inc., 91 Sabin St., Providence, R. I.
Tallman Manufacturing Co., S. Lodge St., Shelbyville, Ill.
Tally-Meter Co., 17 Elmwood Ave., Norwich, Conn.
Taylor Belting Co., The, 247 S. Meridian St., Indianapolis, Ind.
Taylor Forge & Pipe Works, Box 485, Chicago, Ill.
Taylor Instrument Companies, 95 Ames St., Rochester, N. Y.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.
Taylor, S. G., Chain Co., P. O. Box 1297, Hammond, Ind.
Taylor, Stiles & Co., Riegelsville, N. J.
Templeton, Kenly & Co., 1020 S. Central Ave., Chicago, Ill.
Tessmer Machine & Tool Co., 1425-1445 Rivard St., Detroit, Mich.
Thermoid Rubber Co., Whitehead Rd., Trenton, N. J.
Thomas, Seth, Clock Co., Thomaston, Conn.
Thompson, Henry G., & Son Co., The, 277 Chapel St., New Haven, Conn.
Threadwell Tap & Die Co., 16 Arch St., Greenfield, Mass.
Three In One Oil Co., 170 Varick St., New York, N. Y.
Thurston Mfg. Co., 45 Borden St., Providence, R. I.
Thwing Instrument Co., 3339 Lancaster Ave., Philadelphia, Pa.
Tilghman, T. H., & Sons, 300 Commerce St., Salisbury, Md.
Tillery's, Little Janitor Clock Co., 55 Orchard St., Newark, N. J.

Timken Roller Bearing Co., The, Canton, O.
Titeflex Metal Hose Co., 500 Frelinghuysen Ave., Newark, N. J.
Tremec Co., Inc., 3122 Roanoke Rd., Kansas City, Mo.
Toledo Belting Co., The, 1312 Adams St., Toledo, Ohio.
Toledo Pipe Threading Machine Co., The, 1445 Summit St., Toledo, Ohio.
Toledo Pressed Steel Co., The, 397 Phillips Ave., Toledo, Ohio.
Toledo Scale Co., Albion & Monroe Sts., Toledo, Ohio.
Toledo Steel Tube Co., The, 2115 Smead Ave., Toledo, Ohio.
Toledo Wheelbarrow Co., Broadway & Wabash R. R., Toledo, Ohio.
Toles, W. C., Co., 515 W. Judd St., Woodstock, Ill.
Ton-Tex Corporation, 247 Pearl St., Grand Rapids, Mich.
Torchweld Equipment Co., 1035 W. Lake St., Chicago, Ill.
Torit Mfg. Co., 174 W. Kellogg Blvd., St. Paul, Minn.
Torrey Roller Bushing Works, 36 Commercial St., Bath, Me.
Torrington Brush Works, 104 Calhoun St., Torrington, Conn.
Torrington Mfg. Co., Franklin St., Torrington, Conn.
Tower Mfg. Co., Madison, Ind.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Tranter Mfg. Co., 105 Water St., Pittsburgh, Pa.
Trent, Harold E., Co., 618-640 N. 54th St., Philadelphia, Pa.
Trerice, H. O., Co., 1420 Lafayette Blvd., Detroit, Mich.
Trico Fuse Mfg. Co., 2948 N. Fifth St., Milwaukee, Wis.
Trill Indicator Co., 38 E. South St., Corry, Pa.
Trimont Mfg. Co., 55-71 Amory St., Roxbury, Boston, Mass.
Troy Engine & Machine Co., Troy, Pa.
Truscon Steel Co., Youngstown, Ohio.
Tryco Products, Inc., Railroad Sq., Westfield, Mass.
Tube-Turns, Inc., 1303 S. Shelby St., Louisville, Ky.
Tuck Mfg. Co., 74 Ames St., Brockton, Mass.
Turner Brass Works, The, 800-810 Park Ave., Sycamore, Ill.
Turner, Day and Woolworth Handle Co., 1215 S. 7th St., Louisville, Ky.
Tuthill Pump Co., 131 W. 63rd St., Chicago, Ill.
Twin Disc Clutch Co., 1328 Racine St., Racine, Wis.
Tyson Roller Bearing Corp., Oberlin Rd., S. W., Massillon, Ohio.

U

Uehling Instrument Co., 473 Getty Ave., Paterson, N. J.
Uniflow Mfg. Co., East Lake Rd., Erie, Pa.
Union Diesel Engine Co., Kennedy & E. 7th Sts., Oakland, Calif.
Union Drawn Steel Co., (Subsidiary of Republic Steel Corp.), Massillon, Ohio.
Union Fibre Sales Co., Winona, Minn.
Union Mfg. Co., 296 Main St., New Britain, Conn.
Union Steam Pump Co., Battle Creek, Mich.
Union Twist Drill Co., Athol, Mass.
Union Wire Rope Corp., 21st & Manchester Ave., Kansas City, Mo.
Unique Manufacturing Co., 221 W. Whiting St., Chicago, Ill.
United American Bosch Corp., 3664 Main St., Springfield, Mass.
United American Metals Corp., 200 Diamond St., Brooklyn, N. Y.
United Machinery Co., 39 S. E. Salmon St., Portland, Ore.
United Screw & Bolt Corp., 3590 W. 58th St., Cleveland, Ohio.
United States Air Compressor Co., 5300 Harvard Ave., Cleveland, Ohio.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Electrical Motors, 200 E. Slauson Ave., Los Angeles, Calif.
United States Electrical Tool Co., The, 2479 W. 6th St., Cincinnati, Ohio.
U. S. Expansion Bolt Co., 75 Varick St., New York, N. Y.
United States Gauge Co., 44 Beaver St., New York, N. Y.
United States Graphite Co., The, 1621 Holland Ave., Saginaw, Mich.
U. S. Gutta Percha Paint Co., 12 Dudley St., Providence, R. I.
U. S. Hame Co., 135 Tonawanda St., Buffalo, N. Y.
U. S. Indestructible Gasket Co., 829 E. 15th St., Brooklyn, N. Y.
United States Machine Co., 720 W. 3rd St., Williamsport, Pa.
U. S. Mineral Wool Co., 280 Madison Ave., New York, N. Y.
U. S. Reamer & Tool Corp., 3191 Casitas Ave., Los Angeles, Calif.
United Superior Union Co., Inc., 29 Ryerson St., Brooklyn, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, 1306 W. 11th St., Cleveland, Ohio.

V

Vacuum Cup Metal Pulley Co., 578 Maccabees Bldg., Detroit, Mich.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., 160 Wilbraham Ave., Springfield, Mass.
Vaughan & Bushnell Mfg. Co., 2114 Carroll Ave., Chicago, Ill.
Veeder-Root, Inc., Garden & Sargeant Sts., Hartford, Conn.
Vellumoid Co., The, 54 Rockdale St., Worcester, Mass.
Victor Balata & Textile Belting Co., 53 Park Place, New York, N. Y.
Victor Electric Products, Inc., 730 Reading Road, Cincinnati, Ohio.
Victor Lubricator Co., 3900 N. Rockwell St., Chicago, Ill.
Victor Mfg. & Gasket Co., 5750 Roosevelt Rd., Chicago, Ill.
Victor Saw Works, Inc., 22 Cottage St., Middletown, N. Y.
Victor Welding Equipment Co. (Division of Victor Equipment Co.), 844 Folsom St., San Francisco, Calif.
Viking Pump Co., 406 State St., Cedar Falls, Iowa.
Vincent Steel Process Co., 2434 Bellevue Ave., Detroit, Mich.
Vita-Var Corp., 46 Albert Ave., Newark, N. J.
Vitrified Wheel Co., Emery St., Westfield, Mass.
Vlchek Tool Co., The, 3000 E. 87th St., Cleveland, Ohio.
Vogt Brothers Mfg. Co., 1402 W. Main St., Louisville, Ky.
Vogt, Henry, Machine Co., 10th & Ormsby Sts., Louisville, Ky.
Von Hoffman Press, Ninth & Walnut Sts., St. Louis, Mo.
Vortex Manufacturing Co., The, 1978 W. 77th St., Cleveland, Ohio.
Vulcan Electric Co., 600 Broad St., Lynn, Mass.
Vulcan Tool Mfg. Co., 41 Liberty St., Quincy, Mass.
Vulcan Wheels, Inc., Ave. L and Thornton St., Newark, N. J.

W

Wagner Electric Corp., 6400 Plymouth Ave., St. Louis, Mo.
Wahl Refractory Products Co., The, 420 Dickenson St., Fremont, Ohio.
Waldron, John, Corp., New Brunswick, N. J.
Walker-Turner Co., Inc., South Ave., at Berckman St., Plainfield, N. J.
Wall, P., Mfg. Supply Co., 3126 Preble Ave., Pittsburgh, Pa.
Wallace, J. D., & Co., 134 S. California Ave., Chicago, Ill.
Wall Rope Works, Inc., 48 South St., New York, N. Y.
Wall Sales Corp., 96 Warren St., New York, N. Y.
Walters Manufacturing Co., 138 Pennsylvania Ave., Oakmont, Pa.
Waltham Grinding Wheel Co., Waltham, Mass.
Walworth Co., 60 E. 42nd St., New York, N. Y.
Wappat, Inc., 7521 Meade St., Pittsburgh, Pa.
Warner & Swasey Co., The, 5701 Carnegie Ave., Cleveland, Ohio.
Warner, W. E., & Co., 265 Canal St., New York, N. Y.
Warnock Manufacturing Co., 54 Commercial St., Worcester, Mass.
Warren Handle Works Co., Pearl St., Cortland, Ohio.
Warren, J. D., Mfg. Co., Montpelier, Ohio.
Washburn Co., The, 28 Union St., Worcester, Mass.
Wasmer Bolt & Nut Co., The, 13000 Athens Ave., Cleveland, Ohio.
Watson & McDaniel Co., Marshall & Noble Sts., Philadelphia, Pa.
Watson-Stillman Co., The, 100 Aldene Rd., Roselle, N. J.
Watt's, John M., Sons, 120 Walnut St., Philadelphia, Pa.
Watts Regulator Co., 250 Lowell St., Lawrence, Mass.
Wave Cut File & Tool Corp., 303 4th Ave., New York, N. Y.
Wayne Catalog Co., 4-8 North Sixteenth St., Richmond, Ind.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Webb, J. A., Belting Co., Inc., 45 Pearl St., Buffalo, N. Y.
Webster Mfg. Co., 1806 N. Kostner Ave., Chicago, Ill.
Weil Pump Co., 215 W. Superior St., Chicago, Ill.
Weldit Acetylene Co., 638 Bagley Ave., Detroit, Mich.
Weller Mfg. Co., 1806 N. Kostner Ave., Chicago, Ill.
Wells, A. H., & Co., Inc., Watertown Ave., Waterbury, Conn.
Wells Manufacturing Corp., 315 Seventh Ave., Three Rivers, Mich.
West Bend Equipment Corp., West Bend, Wis.
Westco Pump Corp., Davenport, Iowa.
Westcott Chuck Co., 312 E. Walnut St., Oneida, N. Y.
Western Automatic Machine Screw Co., The, Foster & Lake Ave., Elyria, Ohio.
Western Engineering & Mfg. Co., 2614 Irving Pk. Blvd., Chicago, Ill.
Western Hdwe. Mfg. Co., 2428 No. Third St., Milwaukee, Wis.
Western Nipple Manufacturing Co., 875-877 Folsom St., San Francisco, Calif.
Western Packing & Supply Co., 517 S. Jefferson St., Chicago, Ill.
Western Products, Inc., New Castle, Ind.
Western Rawhide & Belting Co., 131-139 E. Washington St., Milwaukee, Wis.
Western Wire Products Co., 1415-35 South 18th St., St. Louis, Mo.
Westinghouse Lamp Co., 150 Broadway, New York, N. Y.
Wheeling Corrugating Co., Wheeling Steel Corporation Bldg., Wheeling, W. Va.
Wheeling Machine Products Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling Steel Corporation Bldg., Wheeling, W. Va.
White & Bagley Co., The, 100 Foster St., Worcester, Mass.
Whitehead Bros. Rubber Co., Whitehead Rd., Trenton, N. J.
White, S. S., Mfg. Co., New York, N. Y.
Whiting Leather & Belting Co., 30-30 Northern Blvd., Long Island City, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.
Whitman and Barnes, Inc., 2108 W. Fort St., Detroit, Mich.
Whitney Mfg. Co., The, Hamilton St., Hartford, Conn.
Whitney Metal Tool Co., 110 Forbes St., Rockford, Ill.
Whitney Screw Co., Nashua, N. H.
Whitney, W. A., Mfg. Co., 636 Race St., Rockford, Ill.
Whiton Chuck Co., The, New London, Conn.
Wickwire Brothers, 189 Main St., Cortland, N. Y.
Wickwire Spencer Steel Co., 41 E. 42nd St., New York, N. Y.
Wiedemann Machine Co., 1815-31 Sedgley Ave., Philadelphia, Pa.
Wiegand, Edwin L., Co., 7508 Thomas Blvd., Pittsburgh, Pa.
Wilbur & Williams Co., The, Park Square Blvd., Boston, Mass.
Williams, D. T., Valve Co., The, Spring Grove Ave. & Township St., Cincinnati, Ohio.
Williams, E. A., & Son, Inc., 107 Plymouth St., Jersey City, N. J.
Williams, Franklin, Inc., 451 S. Jefferson St., Orange, N. J.
Williams Gauge Co., The, 1620 Pennsylvania Ave., N. S., Pittsburgh, Pa.
Williams, I. B., & Sons, 9 Orchard St., Dover, N. H.
Williams, J. H., & Co., 75 Spring St., New York, N. Y.
Williams, William E., Valve Corp., 62 Front St., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wills Products Co., The, 250 W. 57th St., New York, N. Y.
Willson Products, Inc., P. O. Box 901, Reading, Pa.
Wilson, Thomas C., Inc., 55 Vandom St., New York, N. Y.
Wil-X-Mfg. Corp., 29 Ryerson St., Brooklyn, N. Y.
Wing, J. T., & Co., 300 Bates St., Detroit, Mich.
Winter Brothers Co., Inc., Kendrick St., Wrentham, Mass.
Winterhoff Tool & Machine Co., 108 S. Elkhart Ave., Elkhart, Ind.
Wiping Materials, Inc., 2028 N. Main St., St. Louis, Mo.
Wire Rope Corp., of America, 464 Congress Ave., New Haven, Conn.
Wire Rope Lubricating Co., P. O. Box 699, Trenton, N. J.
Wire Rope Mfg. and Equipment Co., 322-1st Ave., S., Seattle, Wash.
Wirt & Knox Mfg. Co., 23rd & York Sts., Philadelphia, Pa.
Wisconsin Waste & Wiper Co., 802 W. Windlake Ave., Milwaukee, Wis.
Wiss, J., & Sons Co., 33 Littleton Ave., Newark, N. J.
Witt Cornice Co., The, 2118 Winchell Ave., Cincinnati, Ohio.
Wittek Mfg. Co., 4305 W. 24th St., Chicago.
Wodack Electric Tool Corp., 4621 West Huron St., Chicago, Ill.
Wolverine Tube Co., 1451 Central Ave., Detroit, Mich.

UMI

A. A. Wood & Sons Co., P. O. Box 937, Haynes & Magnolia Sts., Atlanta, Ga.
Wood, H. C., Machine Works, 514 Bryant St., San Francisco, Calif.
Wood's, T. B., Sons Co., 5th Ave., Chambersburg, Pa.
Wood, R. E., & Son, Iron & Steel, 315-316 Crozer Bldg., Chester, Pa.
Wood Shovel & Tool Co., Roosevelt & Clarke Ave., Piqua, Ohio.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., 38 Austin St., Worcester, Mass.
Worcester Taper Pin Co., Worcester, Mass.
Worthington-Gamon Meter Co., Worthington Ave., Harrison, N. J.
Worthington Pump and Machinery Corp., Worthington Ave., Harrison, N. J.
Wright-Austin Co., 315 W. Woodbridge St., Detroit, Mich.
Wright Manufacturing Division of American Chain Co., Princess and Charles Sts., York, Pa.
Wrought Washer Mfg. Co., 2205 South Bay St., Milwaukee, Wis.

Y

Yale & Towne Mfg. Co., The, (Philadelphia Division), 4530 Tacony St., Philadelphia, Pa.
Yale & Towne Mfg. Co., Stamford, Conn.
Yarnall-Waring Co., 102 E. Mermaid Lane, Chestnut Hill, Philadelphia, Pa.
Yeomans Brothers Co., 1433 Dayton St., Chicago, Ill.
Yost Manufacturing Co., S. Main St., Meadville, Pa.
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These Distributors find many advantages in Keystone

A COMPLETE LINE

There is a Keystone Lubricant made specially for every operating condition.

HONEST QUALITY

The best lubricant for specific purposes has been the Keystone standards for over fifty years.

ENGINEERED

The Keystone Engineering Service is applied not only to the construction of the lubricant but to its application.

CLEANLY DISTRIBUTED

All sales are made through Industrial Distributors, with whom the Keystone Engineers constantly co-operate.

EFFICIENT SALES HELP

Industrial advertising, sales literature and the development of tailor-made sales-methods for the individual distributor are included in company co-operation.

READ THIS:

Haverstick & Co., Inc., Rochester, N. Y.:
"Keystone sales have increased throughout all the dull years . . . proof that quality-and-performance is desired."

Johnson-Mandeville Company, Newark, N. J.:
"Price quickly fades when we have the opportunity to demonstrate the efficiency of Keystone Specialized Lubricants."

Georgia Supply Company, Savannah, Ga., and Jacksonville, Fla.:
"We unhesitatingly recommend Keystone Lubricants for the most difficult jobs—we know they will stand up."

Jensen-Byrd Company, Spokane, Wash.:
"The fine Keystone policy, co-operative merchandising and high class sales personnel have proved of great benefit to our accounts as well as to ourselves."

The Keystone Distributor in your locality will gladly co-operate with you in making Keystone Lubrication Service available to your customers.

THE KEYSTONE LUBRICATING COMPANY
21st, Clearfield and Lippincott Streets, Philadelphia, Pa.

ESTABLISHED 1884

KEYSTONE

SPECIALIZED LUBRICANTS

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SPECIALIZED
LUBRICANTS

KEYSTONE DISTRIBUTORS

Ala., *Birmingham*, Moore-Handley Hdwe. Co.
Mobile, Marine Specialty Co.
Calif., *Fresno*, Pacific Mill & Mine Supply Co., Inc.
Los Angeles, Union Hdwe. & Metal Co.
San Francisco, Marshall-Newell Supply Co.
Stockton, Austin Bros.
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Fla., *Jacksonville*, Georgia Supply Co.
Tampa, The Cameron & Barkley Co.
Ga., *Atlanta*, J. M. Tull Metal & Sup. Co.
Macon, Taylor Iron Works & Supply Co.
Savannah, Georgia Supply Co.
Ill., *Chicago*, Samuel Harris & Co.
Great Lakes Supply Corporation
Moline, Thomas Dunn & Sons
Peoria, Haggerty Bros. Co.
Ind., *Evansville*, Evansville Supply Co.
Fort Wayne, Fort Wayne Pipe & Supply Co.
Indianapolis, Indianapolis Belting & Sup. Co.
Iowa, *Des Moines*, Globe Machinery & Sup. Co.
Kans., *Pittsburg*, United Iron Works Co.
Ky., *Louisville*, Neill-La Vielle Supply Co., Inc.
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Md., *Baltimore*, Carey Machinery & Sup. Co.
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Lawrence, Trent Hardware Company
New Bedford, Russell, Millbench & Harrison Co., Inc.
Pittsfield, Berkshire Mill Supply Co.
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Taunton, Pierce Hardware Co.
Worcester, Briefly-Lombard Co.
Mich., *Detroit*, The Charles A. Strelinger Co.
Grand Rapids, Manufacturers Supply Co.
Iron Mountain, Service & Supply Co.
Minn., *Duluth*, Kelley-How-Thomson Co.
St. Paul, R. B. Whitacre & Co., Inc.
Mo., *Kansas City*, Richards & Conover Hdwe. Co.
St. Louis, Geller, Ward & Hesser Hdwe. Co.
Neb., *Omaha*, Interstate Mach. & Sup. Co.
Nev., *Reno*, Reno Motor Supply Co.
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Buffalo, Weed & Co.
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Long Island City, The Long Island Hardware Co.
Newburgh, W. L. Smith
New York City, A. F. Dienst Co., Inc.
Hanson & Yorke Co., Inc.
Frank Tracy, Inc.
The Williams & Wells Co.
Rochester, Haverstick & Co., Inc.
Syracuse, Syracuse Supply Co.
Troy, Troy Belting & Supply Co.
Yonkers, Joseph C. Ryan & Sons, Inc.
N. C., *Charlotte*, Textile Mill Supply Co.
Durham, Dillon Supply Co.
Raleigh, Dillon Supply Co.
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Cleveland, The W. Bingham Co.
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Penna., *Allentown*, Wm. H. Taylor & Co., Inc.
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Scranton, The Bittenbender Co., Inc.
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Williamsport, E. Keeler Co.
York, York Machinery & Supply Co.
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Woonsocket, Woonsocket Supply Co.
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Tenn., *Chattanooga*, James Supply Co.
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Memphis, Riechman-Crosby Co.
Nashville, Nashville Machine & Supply Co.
Texas, *Dallas*, Briggs-Weaver Machinery Co.
El Paso, Ammex Equipment Co., Inc.
Houston, Pedas Iron & Steel Co.
Marshall, E. B. Hayes Machinery Co.
San Antonio, Alamo Iron Works
Utah, *Salt Lake City*, Gallagher Co.
Va., *Norfolk*, Empire Machinery & Supply Corp.
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